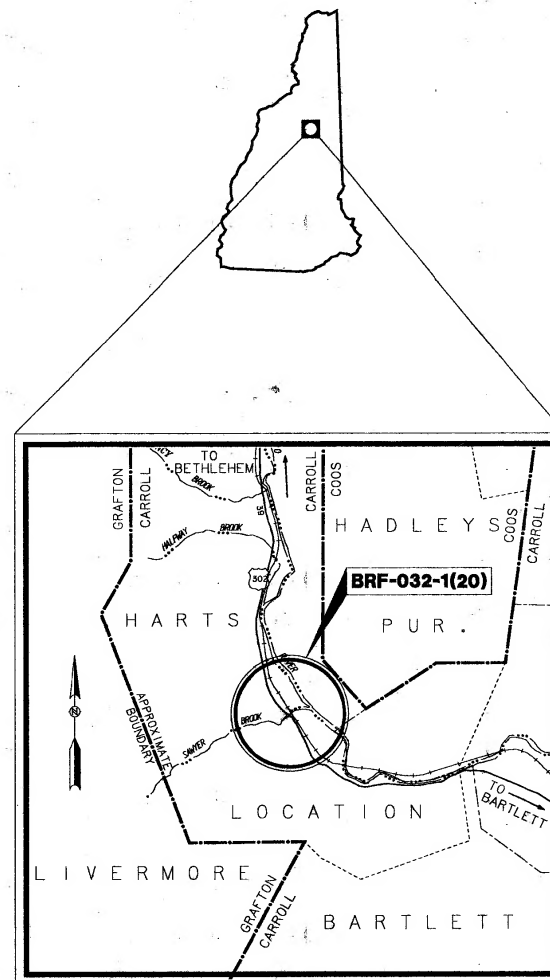
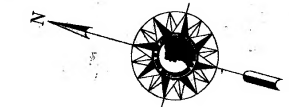


THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
FEDERAL AID PRIMARY
BRIDGE REPLACEMENT PROJECT

BRF-032-1(20)
N.H. PROJECT NO. P-4366
N.H. ROUTE 302

DESIGN DATA	
AVERAGE DAILY TRAFFIC 1990	2690
AVERAGE DAILY TRAFFIC 2010	4050
PERCENT OF TRUCKS	5
DESIGN SPEED	50 M.P.H.
LENGTH OF PROJECT	0.369 MILES



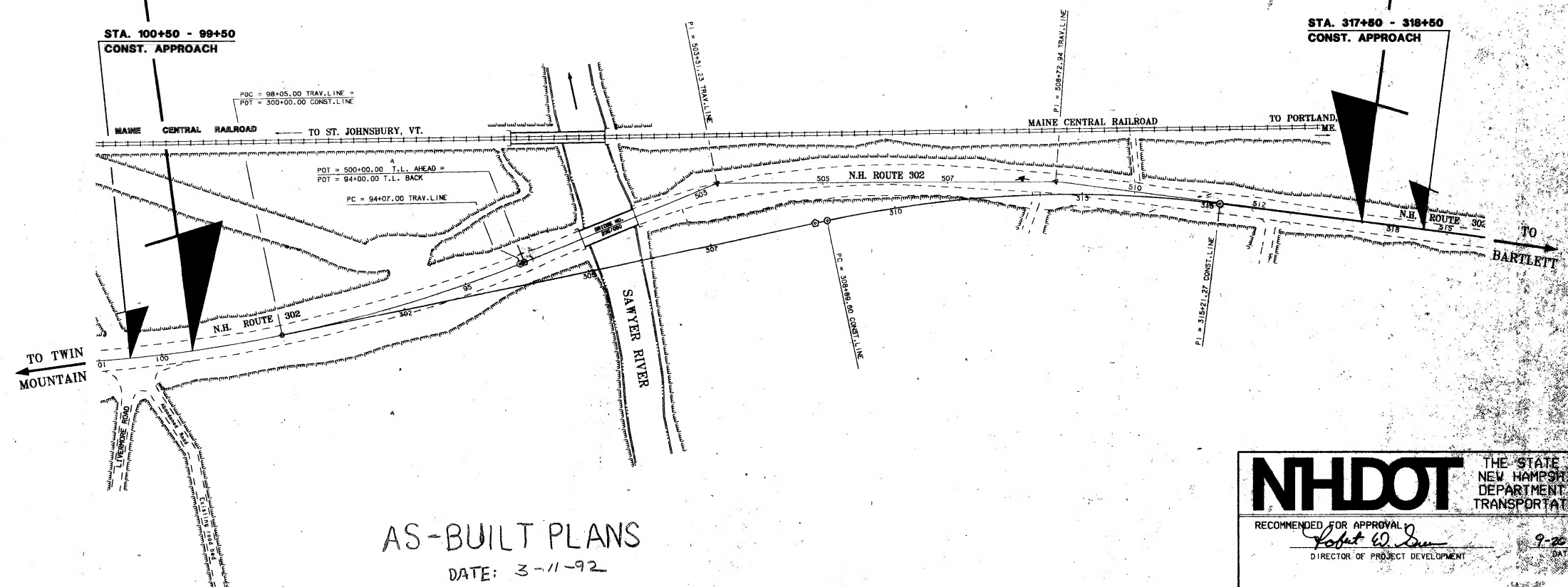
LOCATION MAP



GRAPHIC SCALE: 1" = 4000'

STA 99+50
BEGIN BRF-032-1(20)

STA 317+50
END BRF-032-1(20)



AS-BUILT PLANS

DATE: 3-11-92

LAYOUT

SCALE: 1" = 100'

TOWN OF HARTS LOCATION

COUNTY OF CARROLL

NHDOT		THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION	
RECOMMENDED FOR APPROVAL		DATE: 9-26-90	
Robert W. Dunn DIRECTOR OF PROJECT DEVELOPMENT			
APPROVED:		DATE: 9-26-90	
S. E. Commissioner			
U. S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION			
APPROVED:			
DIVISION ADMINISTRATOR			
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
BRF-032-1(20)	P-4366	1	45

DRAWN BY: STEVE LEBARON
CHECKED BY: WILLIAM HARDMAN
DATE: 1-22-88
DATE: 10-6-90

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE PAGE
2	INDEX OF SHEETS & GENERAL NOTES
3	INDEX OF STANDARD SHEETS & CONSTRUCTION SIGN STANDARD SHEETS
4	STANDARD SYMBOLS
5 & 6	TYPICAL SECTIONS OF IMPROVEMENT
7	SUMMARY OF QUANTITIES (ROADWAY)
	<u>SPECIAL USE PLANS:</u>
8	EROSION CONTROL DETAILS
9-11	SPECIAL GUARDRAIL DETAILS
12	PORTABLE CONCRETE BARRIER
	<u>BRIDGE PLANS:</u>
13-32	BRIDGE OVER THE SAWYER RIVER
	<u>ROADWAY PLANS:</u>
33 & 34	GENERAL PLANS
35	PROFILE U.S. ROUTE 302
36 & 37	DRAINAGE, GUARDRAIL, CURBING, PAVEMENT LAYOUT, AND PAVEMENT MARKING PLANS
	<u>CROSS-SECTIONS:</u>
38-45	U.S. ROUTE 302

THE FOLLOWING GENERAL NOTES
WILL BE USED ON THIS PROJECT:

1	2			5	6	7	8				12
13	14										23
25											

GENERAL NOTES

- THIS PROJECT TO BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS DATED 1983 AND SUPPLEMENTAL SPECIFICATIONS, CURRENT STANDARD SHEETS AND SPECIAL PROVISIONS ATTACHED TO THE PROPOSAL.
- ADJUSTING, ALTERING OR RELOCATING THE PROPERTY OF ANY PUBLIC UTILITY SHALL BE DONE BY THE OWNER, NOT A PART OF THIS CONTRACT. THE CONTRACTOR SHALL COOPERATE WITH THE OWNER IN THE PERFORMANCE OF THE WORK.
- HIGH TENSION OVERHEAD TRANSMISSION LINES ARE LOCATED THROUGHOUT THE PROJECT WITH CROSSINGS AT VARIOUS LOCATIONS AND RUNNING ALONG THE ROAD THROUGHOUT THE PROJECT EVEN ON REGULAR POLES. THE CONTRACTOR IS ADVISED THAT EXTREME CAUTION WILL BE REQUIRED IN THE OPERATION OF EQUIPMENT, ESPECIALLY CRANES AND PILE DRIVING EQUIPMENT.
- ALL EXISTING UTILITY POLES WILL BE RELOCATED BY OTHERS TO A MINIMUM OF _____ FEET FROM THE ROADWAY CENTERLINE.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. THE EXACT LOCATION SHOULD BE ESTABLISHED IN THE FIELD BY THE UTILITY COMPANY PRIOR TO ANY EXCAVATION OR POST DRIVING.
- DRIVES SHALL BE REPLACED IN KIND EXCEPT AT THOSE LOCATIONS WHERE DRIVES HAVE BEEN STEEPENED TO THE EXTENT THAT A MORE STABLE SURFACE IS WARRANTED. ALL GRAVEL DRIVES TO RESIDENCES AND OTHER GRAVEL DRIVES WHEN ORDERED, SHALL BE CONSTRUCTED WITH A PAVED APRON ADJACENT TO THE SHOULDER.
- TOPSOIL SHALL BE REMOVED FOR ITS TOTAL DEPTH WITHIN THE LIMITS OF THE SLOPE LINES. UNLESS OTHERWISE DIRECTED, THE TOPSOIL SHALL BE STOCKPILED AND USED IN ITS ENTIRETY UNDER SECTION 641 - LOAM AND/OR SECTION 647 - HUMUS.
- UNSUITABLE MATERIAL, ROOTS AND STUMPS WITHIN THE LIMITS OF THE ROAD BED, SHALL BE REMOVED AS ORDERED.
- MUCK SHALL BE REMOVED BY EXCAVATION UNDER ITEM (203.1), (203.4), OR BY DISPLACEMENT, AS ORDERED.
- THE SUBGRADE SHALL BE SCARIFIED TO ASSURE THAT ALL BOULDERS AND COBBLES OVER 6 INCHES ARE REMOVED WITHIN 36 INCHES OF FINISHED GRADE. THIS WORK AND RECOMPACTION OF THE SUBGRADE WILL BE PAID UNDER ITEM 212.1 - SCARIFYING.
- EXISTING LEDGE AND BOULDER OUTCROPS ARE TO BE REMOVED AND/OR BERMED AS SHOWN OR AS ORDERED.
- HUMUS SHALL BE APPLIED TO ALL EARTH SLOPES NOT LOAMED TO A NOMINAL DEPTH OF 3-1/2 INCHES (471 C.Y./ACRE), UNLESS OTHERWISE ORDERED.
- ALL NEW EARTH SLOPES SHALL BE MULCHED.
- THE SLOPES AROUND EXTENDED PIPES SHALL BE FLATTENED AND GRADED AS SHOWN OR ORDERED.
- ASPHALT SURFACE TREATMENT INCLUDING SAND COVER SHALL BE APPLIED TO THE TRAVELED WAY AS A PRIME COAT AT THE RATE OF 0.50 GALLONS PER SQUARE YARD IN ONE APPLICATION, OR AS ORDERED.
- ASPHALT SURFACE TREATMENT INCLUDING SAND COVER SHALL BE APPLIED TO THE SHOULDER AS A PRIME COAT AT THE RATE OF 0.50 GALLONS PER SQUARE YARD IN ONE APPLICATION, OR AS ORDERED.
- THE PAVEMENT OVERLAY SHALL BE WARPED TO MATCH EXISTING CATCH BASINS, DROP INLETS, AND/OR SIMILAR STRUCTURES.
- EXISTING CONCRETE PAVEMENT REMOVAL WILL BE PAID UNDER ITEM 203.2 - ROCK EXCAVATION (____ C.Y./100 L.F.). THE BITUMINOUS PAVEMENT ABOVE THE CONCRETE WILL NOT BE PAID UNDER ITEM 203.2.
- RESTORE SUPERELEVATION ON EXISTING CURVES BY THE USE OF A PAVEMENT LEVELING COURSE AS INDICATED ON PLANS OR AS ORDERED.
- ALL CRACKS IN THE PAVEMENT MEASURING 1/4 INCH OR MORE IN WIDTH, OR AS ORDERED, SHALL BE TREATED WITH CRACK FILLER WITHIN THE LIMITS DESIGNATED ON THE PLANS.
- ADJUSTMENT OF CATCH BASINS AND DROP INLETS OR SIMILAR STRUCTURES TO THE NEW PAVEMENT GRADE SHALL BE DONE AS ORDERED. PAYMENT WILL BE UNDER ITEM 604.45 - ADJUSTING CATCH BASIN AND DROP INLET GRATES AND FRAMES SET BY OTHERS.
- EXISTING ANCHORS FOR CABLE GUARD RAIL SHALL BE DUG UP AND SALVAGED INTACT TO THE STATE.
- ALL GUARD RAIL SHALL BE SET AT A 27 INCH RAIL HEIGHT BASED ON THE PAVEMENT OVERLAY, UNLESS OTHERWISE SHOWN OR ORDERED.
- EXISTING DELINEATORS AND WITNESS MARKERS THAT ARE DISTURBED SHALL BE RESET. THIS WORK WILL BE SUBSIDIARY. ADDITIONAL DELINEATORS ORDERED WILL BE PAID UNDER APPROPRIATE ITEMS OF THE CONTRACT.
- NO EXISTING MONUMENTS, BOUNDS, OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.
- UNPROTECTED PROJECT MARKERS SHALL BE REMOVED OR SET BACK TO 30 FEET FROM THE TRAVELED WAY AS ORDERED. THIS WORK WILL BE SUBSIDIARY.
- CLEARING AND GRUBBING ON THIS PROJECT WILL BE SUBSIDIARY.
- ALL WORK ON THIS PROJECT, UNLESS OTHERWISE SHOWN ON THE PLANS OR ORDERED, SHALL BE CONSTRUCTED WITHIN THE EXISTING RIGHT-OF-WAY.
- COORDINATES FOR THIS PROJECT ARE (_____) AND THE BEARING SHOWN ARE (_____).

STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION - BUREAU OF HIGHWAY DESIGN			
INDEX OF SHEETS AND GENERAL NOTES			
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
BRF-032-1(20)	P-4366	2	45

STANDARD SHEETS					
STANDARD	NO. 1	CONCRETE AND M.R.M. HEADWALLS	REVISED	MARCH 24, 1977	
STANDARD	NO. 1-A	CONCRETE AND M.R.M. HEADWALLS	REVISED	MAY 8, 1970	
STANDARD	NO. 2	STEEL ARCH PIPES, SLOPE PAVING, UNDERDRAIN HEADWALL	REVISED	MARCH 1, 1983	
STANDARD	NO. 2-A	CORRUGATED ALUMINUM PIPE, PIPE ARCH, UNDERDRAIN FLUSHING BASIN	REVISED	DECEMBER 20, 1982	
STANDARD	NO. 3	CATCH BASINS, DROP INLETS,	REVISED	OCTOBER 17, 1983	
STANDARD	NO. 3-A	GRATES FOR C.B.'S & D.I.'S,	REVISED	OCTOBER 17, 1983	
STANDARD	NO. 3-B	CATCH BASINS, DROP INLETS, TRAP	REVISED	OCTOBER 17, 1983	
STANDARD	NO. 4	CURBING	REVISED	APRIL 21, 1982	
STANDARD	NO. 5	CONCRETE BOUND, STEPS	REVISED	NOVEMBER 1, 1984	
STANDARD	NO. 5-A	GUTTERS, SLUICE, SLOPES, MUCK EXCAVATION	REVISED	FEBRUARY 26, 1975	
STANDARD	NO. 6	BEAM GUARD RAIL	REVISED	JUNE 11, 1981	
STANDARD	NO. 6-A	BEAM GUARD RAIL	REVISED	DECEMBER 10, 1981	
STANDARD	NO. 7	BEAM GUARD RAIL	REVISED	MAY 15, 1985	
STANDARD	NO. 8	3 CABLE GUARD RAIL	REVISED	MARCH 24, 1977	
STANDARD	NO. 8-A	3 CABLE GUARD RAIL	REVISED	DECEMBER 10, 1981	
STANDARD	NO. 9	WOVEN WIRE & CHAIN LINK FENCE	REVISED	AUGUST 2, 1977	
STANDARD	NO. 9-A	STEEL WITNESS MARKER, STEEL SIGN POST, DELINEATOR POST	REVISED	MAY 15, 1985	
STANDARD	NO. 10	SIGNAL BASE, PULL BOX, CONDUIT DETAILS, HANDHOLE, FOUND. FOR CONT. CABINET	REVISED	MAY 15, 1985	
STANDARD	NO. 10-A	LENS FOR TURNING MOVEMENTS, LIGHT POLE BASE, DETECTORS, PULL BOX	REVISED	NOVEMBER 1, 1984	
STANDARD	NO. 11	END SECTIONS FOR PIPES	REVISED	MAY 21, 1975	
STANDARD	NO. 12	DELINEATORS FOR GUARD RAIL, MEDIAN BARRIERS	REVISED	MAY 15, 1985	
STANDARD	NO. 12-A	DELINEATOR SPACING FOR RAMPS AND LOOPS	REVISED	MAY 15, 1985	
STANDARD	NO. 13	URBAN MARKING AND SIGN POSTING	REVISED	MARCH 1, 1983	
STANDARD	NO. 14	RUBBISH CONTAINER, FIREPLACE, TABLE, SHELTER	REVISED	AUGUST 1, 1969	
STANDARD	NO. 15	FIREPLACE, DRINKING FOUNTAIN, WATER PIPE DRAINS, PICNIC SITES	REVISED	MARCH 24, 1977	
STANDARD	NO. 16	SIDEWALK RAMPS, CONCRETE ISLAND BLOCKOUTS	REVISED	MAY 15, 1985	

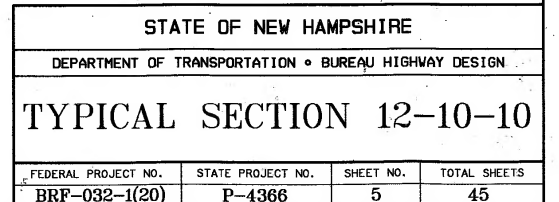
CONSTRUCTION SIGN STANDARD SHEETS				
CS	NO. 1	GENERAL NOTES	REVISED	MAY 15, 1985
CS	NO. 2	BARRICADES, REMOVAL OF PAVEMENT MARKING, CONES, DRUMS	REVISED	MAY 15, 1985
CS	NO. 3	PANELS & DELINEATORS, LIGHTING DEVICES, SIGN PADDLE, HAZARD MARKER	REVISED	MAY 15, 1985
CS	NO. 4	TRAFFIC CONTROL PROCEDURES, HAUL ROADS, BLASTING ZONES	REVISED	MAY 15, 1985
CS	NO. 5	TYPICAL LAYOUT - PERMANENT CONSTRUCTION SIGNING	REVISED	MAY 15, 1985
CS	NO. 6	SIGNS	REVISED	MARCH 1, 1983
CS	NO. 7	SIGNS	REVISED	MARCH 1, 1983
CS	NO. 8	SIGNS	REVISED	MAY 15, 1985
CS	NO. 9	TWO-WAY TRAFFIC LANE CLOSURE AND SHOULDER WORK	REVISED	MAY 15, 1985
CS	NO. 10	2 LANE DIVIDED, 2 LANE CLOSURE - BREAKDOWN LANE	REVISED	MAY 15, 1985
CS	NO. 11	DETOUR FOR 2 LANE CLOSURE, 2 LANE DIVIDED - BRIDGEWORK	REVISED	MAY 15, 1985
CS	NO. 12	4-LANE DIVIDED - 2 LANE CLOSURE UTILIZING CROSSOVER	REVISED	MAY 15, 1985
CS	NO. 13	MULTI-LANE CLOSURE	REVISED	MAY 15, 1985

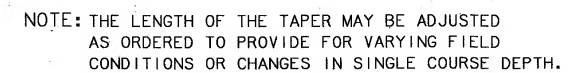
THE FOLLOWING STANDARD SHEETS WILL BE USED ON THIS PROJECT:								THE FOLLOWING CONSTRUCTION SIGN STANDARD SHEETS WILL BE USED ON THIS PROJECT:				
	2	3	3-A	3-B	5	5-A		1	2	3	4	5
				9-A		11	12	6	7	8	9	
								11				

STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION - BUREAU OF HIGHWAY DESIGN			
STANDARD SHEETS			
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
BRF - 032 - I(20)	P - 4366	31	45

EXISTING DETAIL		DATE			
PROPOSED DESIGN		DATE	8-13-90		
SHEET CHECKED		DATE			
AS BUILT DETAILS		DATE			

NOTEBOOKS			REVISIONS AFTER PROPOSAL		
BOOK	PAGE		NUMBER	DATE	STATION
BOOK	PAGE				
BOOK	PAGE				



[illegible]

PAVEMENT MATCH TYPICAL



MISCELLANEOUS TYPICAL

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
BRF-032-1(20)	P-4366	6	45

NOTEBOOKS	
BOOK	PAGE
BOOK	PAGE
BOOK	PAGE

EXISTING DETAIL	DATE
PROPOSED DESIGN	DATE
SHEET CHECKED	DATE
AS BUILT DETAILS	
	DATE

REVISIONS AFTER PROPOSAL

STATION

STATION

DATE

NUMBER

DATE

DATE

DATE

DATE

DATE

DATE

DATE

DATE

LANDSCAPING & SLOPE PROTECTION

ITEM NO.	642.	643.12	644.44	644.6	645.11	645.2	645.51	647.1
ITEM	LIME- STONE	FERTILIZER FOR INITIAL APPLICATION	SLOPE SEED TY. 44	CROWN- VETCH	MULCH	MATTING FOR EROSION CONTROL	HAY BALES FOR TEMP. EROSION CONTROL	HUMUS
UNIT	TON	TON	LB.	LB.	AC.	S.Y.	EACH	C.Y.
LOCATION								
SLOPE PROTECTION	6.6	1.44	198	7.2	3.3	100	100	1552
SUB-TOTAL	6.6	1.44	198	7.2	3.3	100	100	1552
ROUNDING	0.4	0.16	22	2.8	0.2			123
TOTAL	7	1.6	220	10	3.5	100	100	1675

FORCE ACCOUNT

STATE OF NEW HAMPSHIRE - PAVEMENT MARKING & SIGNING

WORK BY OTHERS

UNDERGROUND UTILITY CABLE RELOCATION

INCIDENTAL ITEMS

ITEM NO.		UNIT	TOTAL
214.	FINE GRADING	UNIT	1
618.7	FLAGGERS	HOURL	750
619.1	MAINTENANCE OF TRAFFIC INCLUDING DUST LAYING	UNIT	1
621.21	REFLECTORIZED BGR DELINEATORS (WHITE)	EACH	16
621.31	SINGLE DELINEATORS WITH POST (WHITE)	EACH	22
622.1	STEEL WITNESS MARKERS	EACH	11
622.2	CONCRETE BOUNDS	EACH	15
692.	MOBILIZATION	UNIT	1
698.12	FIELD OFFICE TYPE B	UNIT	1
698.2	PHYSICAL TESTING LABORATORY	UNIT	1
699.	TEMPORARY PROJECT WATER POLLUTION CONTROL	\$	1
1008.	ALTERATIONS AND ADDITIONS AS NEEDED	\$	1

MATERIALS SALVAGED TO THE STATE

EXISTING PIPES
EXISTING BEAM GUARDRAIL
ANCHORAGES FOR BEAM GUARDRAIL

GUARDRAIL

ITEM NO.	606.140	606.143	606.146S	606.417	606.821	606.86	SUBSID.	632.
ITEM	BEAM GUARD RAIL STD. SECTION (GR-140)	BEAM GUARD RAIL INCL. TERM. SECT. (GR-143)	BEAM GUARD RAIL TERM. UNIT TY. F-1 (GR-146S)	PORT. CONC. BARRIER FOR TRAFFIC CONTROL	REMOVING ANCH. FOR TERMINAL 'F' UNITS	TYPE 'J' ANCH. FOR BEAM GUARD RAIL	REMOVAL OF EXIST. BEAM GUARD RAIL	BOULDERS FOR GUARD- RAIL
UNIT	L.F.	L.F.	UNIT	L.F.	EA.	EA.	L.F.	
LOCATION								
ROUTE 302								
STA. 302+56.5 - 304+69.RT.	138.34			200				
STA. 303+06.5 - 304+69.LT.	98.28							
STA. 306+31 - 307+93.5.RT.	98.28							
STA. 306+31 - 308+70.LT.	247.200	42.84						
STA. 304+30 - 304+35.LT.					2			
STA. 306+65 - 306+85.LT.					2			
STA. 304+30 - 305+00.LT.							140	
STA. 305+85 - 306+85.LT.							175	
STA. 2+97± PAVED PARK AREA								4
SUB-TOTAL	542.5	43	3	200	4	1	315	4
ROUNDING	27.3	7						4
TOTAL	569	50	3	200	4	1	315	8
AS-BUILT TOTALS	522.4	42.8	3	150	4	1	315	8

SUBSIDIARY ITEMS

CONSTRUCT WATERTIGHT CONNECTIONS BETWEEN EXISTING AND PROPOSED PIPES.
CONSTRUCT UL-4 HEADER
REMOVAL OF EXISTING BEAM GUARDRAIL
REMOVAL OF EXISTING PIPES WHEN IN PROPOSED PIPE TRENCH

NOTE: THIS SUMMARY SHOULD NOT BE CONSIDERED A COMPLETE LIST OF
SUBSIDIARY WORK PRESENT IN THIS PROJECT. REFER ALSO TO THE PLANS,
PROPOSAL, SPECIAL PROVISIONS, AND STANDARD SPECIFICATIONS.

EARTHWORK

ITEM		C.Y.	ITEM TOTAL
COMMON EXCAVATION IN SECTIONS		6289	
TOPSOIL REMOVED BENEATH FILL SECTIONS (EST)		178	
UNSATURABLE MAT. REMOVED BENEATH FILL SECTIONS (EST)		2114	
UNSATURABLE MAT. REMOVED BENEATH FILL SECT. (EXIST. PAVE.)		275	
DRIVE AND APPROACH EXCAVATION (COMMON)		29	
203.1 TOTAL COMMON EXCAVATION		8885	9500
COMMON STRUCTURE EXCAVATION		33	
SUB-TOTAL		8918	
TOPSOIL REMOVED FOR USE AS LOAM OR HUMUS (EST)		750	
UNSATURABLE EXCAVATION (EST)		564	
COMMON EXCAVATION FOR FILL		7604	
BOULDERS ETC. IN SECTIONS (2 CY)		195	
BOULDERS (1 CY) - 5% TOTAL STRUCTURE EXCAVATION		29	
DRIVE AND APPROACH EXCAVATION (BOULDERS ETC.)		151	
ROCK NOT COVERED BY SECTIONS			
203.2 TOTAL ROCK EXCAVATION		376	400
BOULDERS IN SECTIONS (2 CY) EXPANDED 20%		234	
BOULDERS, ETC.		181	
ROCK STRUCTURE EXCAVATION		2	
ROCK FOR FILL		417	
SECTIONS FILL		11162	
TOPSOIL REPLACEMENT (EST)		178	
UNSATURABLE MATERIAL REPLACEMENT (EST)		2114	
TOTAL FILL		13454	
ROCK FOR FILL		417	
FILL BEFORE EXPANSION		13037	
SHRINKAGE FACTOR (0%)			
EXPANDED FILL		13037	
COMMON EXCAVATION FOR FILL		7604	
SUB-TOTAL BORROW		5433	
15% INPLACE MEASURED QUANTITIES		1179	
203.5 BORROW		6612	7000
EXISTING PAVEMENT REMOVED (EST)		600	
WASTE, (MUCK, ETC.)		564	
TOTAL WASTE		1164	

CONSTRUCTION SIGNS & WARNING DEVICES

(MINIMUM REQUIREMENTS)

SIGN NO.	DESCRIPTION	SIZE	SQ. FT.	NO. REQ.	TOT. AREA	POSTS	EASELS
G20-2	END CONSTRUCTION	3x6	18	2	36	4	
W1-3L	REVERSE TURN LEFT (90 DEG. ARROW)	4x4	16	2	32	4	
W1-3R	REVERSE TURN RIGHT (90 DEG. ARROW)	4x4	16	2	32	4	
W1-B	CHEVRON	2x2.5	5	10	50	10	
W13-1	30 MPH	2x2	4	2	8	4	
W20-1a	ROAD (BRIDGE) CONSTRUCTION AHEAD	4x4	16	2	32	4	
W20-1e	ROAD (BRIDGE) CONSTRUCTION 1/2 MILE	4x4	16	2	32	4	
W20-1f	ROAD (BRIDGE) CONSTRUCTION 1 MILE	4x4	16	2	32	4	

PAVEMENT MARKING

ITEM NO.	619.41	619.51	619.91	632.0104	632.0304	632.0504	632.08
ITEM	SHORT TERM PAVE. MARK. TAPE, ALLUM. FOIL	SHORT TERM PAVE. MARK. TAPE, 60 MIL. REMOVABLE	REMOVAL OF PAVE. MARKINGS	REFL. PAINT PAVE. MARK. SINGLE SOLID LINE 4"	REFL. PAINT PAVE. MARK. DOUBLE SOLID LINE 4"	REFL. PAINT PAVE. MARK. DOUBLE LINE 4" (V/BROKEN LINE)	REFL. PAINT PAVE. MARK. SINGLE LEGEND (HANDICAPPED SY.)
UNIT	L.F.	L.F.	L.F.	L.F.	L.F.	L.F.	EA.
LOCATION							
STA. 99+50 - 317+50.LT. & RT.	500	2500	5000	3800	1250	650	1
STA. 306+30 - 309+00.LT. (PARKING AREA)				270			
SUB-TOTAL	500	2500	4000	4070	1250	650	1
ROUNDING				280	50	50	
TOTAL	500	2500	4000	4350	1300	700	1

SURFACING MATERIALS

ITEM NO.	304.2	304.3	304.35	403.11	403.12	417.	628.2
ITEM	GRAVEL	CRUSHED GRAVEL	CR. GR. FOR UNPAVED DRIVES	HOT BIT. PAVEMENT (MACHINE METHOD)	HOT BIT. PAVEMENT (HAND METHOD)	COLD PLANNING OF BIT. SURFACES	SAVED BITUMINOUS CONCRETE PAVEMENT
UNIT	C.Y.	C.Y.	C.Y.	TON	TON	S.Y.	L.F.
LOCATION							
ROUTE 302	5332	2037		1488		178	64
PAVED PARK AREA		488		128			
DRIVES			25		3		
WINTER PARK AREA	250						
SUB-TOTAL	5582	2525	25	1616	3	178	64
ROUNDING	418	225	5	134	2	12	6
TOTAL	6000	2750	30	1750	5	190	70

DRAINAGE

ITEM NO.	202.41	202.5	206.1	206.2	SUBSID.	585.3	603						604.11	604.242	605.906	REMARKS
ITEM	REMOVAL OF EXIST. PIPE 0"- 24" DIA.	REMOVAL OF CB'S, DI'S, AND MANHOLES	COMMON STRUCT. EXCAV.	ROCK STRUCT. EXCAV.	MORTAR RUBBLE MASONRY	STONE FILL CLASS "C"	.00215 15" RCP 2000 D I.S.E.	.11012 12" CSP .064" I.S.E.	.11015 15" CSP .064" I.S.E.	.30115 15" R.C. END SECT. I.S.E.	.32112 STEEL END SECT. FOR 12"PIPE ISE	.32115 STEEL END SECT. FOR 15"PIPE ISE	.49012 12" PIPE FOR SLOPE DRAIN ISE	CATCH BASINS TYPE A	DROP INLETS TYPE D-B	
UNIT																
LOCATION																
99+00.LT. - 301+00.RT.				5												
301+00.LT. & RT.	44 ✓	2 ✓		132.5			16.55		192.5					2		200
301+00 - 303+00.LT.									200					1		
301+00 - 304+30.LT.	275.280			6												
301+00 - 303+75.RT.				7.3		1 ✓	.5		27							200
303+00 - 305+00.LT.				18.8					200							
303+75 - 304+00± RT				26.1			2.13									
304+75.LT. & RT.				15			2	44	35		2		3552		2	
311+00.LT. & RT.				14			2	30	30		2					
315+84 - 316+22.RT.				4.2												
SUB-TOTAL	319	2	29	31.3	1	3.5	155	38	400	1	4	1	4752	3	2	490
ROUNDING	24		6	2.7		1.4	15	7	39				6			85
TOTAL	340	2	35	34	1	5	170	45	439	1	4	1	4818	3	2	575
AS-BUILT TOTALS	324			40.7		21.3	166.2	35	389.6	1	4	1	82	3	2	72.5
NOTE: GRANULAR BACKFILL FOR UNDERDRAIN SHALL CONFORM TO 209.2.1.1, 2																

CLEARING/GRUBBING

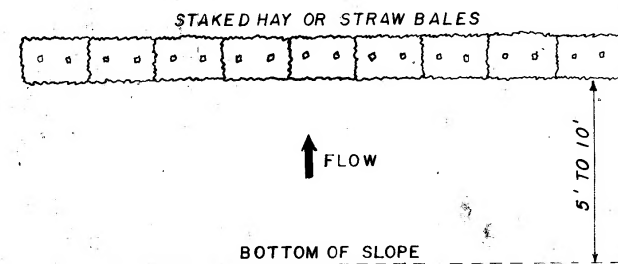
ITEM NO.	201.1
ITEM	CLEARING AND GRUBBING
UNIT	ACRE
LOCATION	
STA. 99+40 - 305+20.LT.	A .60
STA. 99+40 - 301+85.RT.	B .17
STA. 306+00 - 312+00.RT.	C .72
STA. 306+20 - 306+75.LT.	D .01
STA. 312+40 - 315+83.LT.	E .27
STA. 311+93 - 313+78.RT.	F .05
STA. 313+95 - 317+78.RT.	G .19
STA. 316+20 - 317+85.LT.	H .10
WINTER PARK AREA	I .15
SUB-TOTAL	2.26
ROUNDING	.24
TOTAL	2.50

CURBING

ITEM NO.	609.01	609.81
ITEM	STRAIGHT CURB A	BIT. CONC. CURB, UNPAINTED
UNIT	L.F.	L.F.
LOCATION		
STA. 304+00 - 304+66.LT.		66
STA. 304+00 - 304+66.RT.		66
STA. 304+66 - 305+00.LT.		34
STA. 304+66 - 305+00.RT.		34
STA. 306+00 - 306+34.LT.		34
STA. 306+00 - 306+34.RT.		34
STA. 1+25-2+65.LT. PAVED PARK AREA		137
SUB-TOTAL	136	269
ROUNDING	14	31
TOTAL	150	300

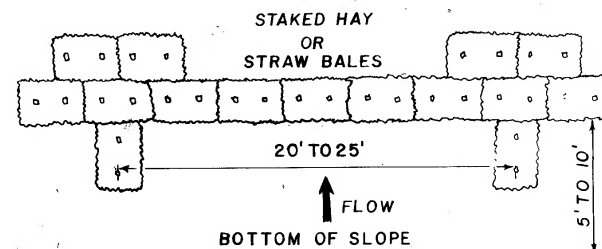
"AS-BUILT TOTALS"

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
BRF-032-1(20)	P-4366	7	45



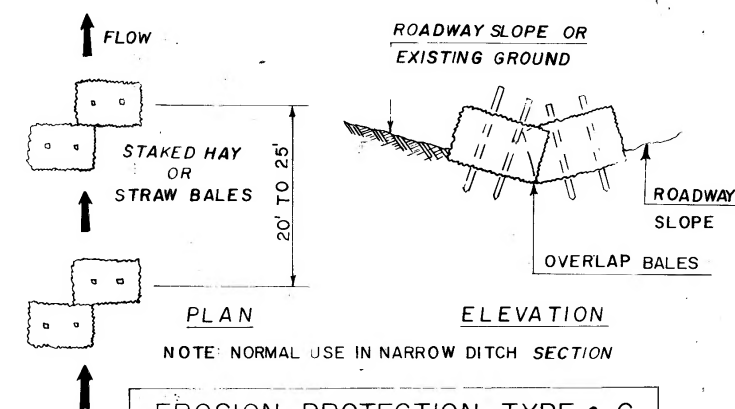
NOTE: NORMAL USE AT BOTTOM OF FILL SLOPE

EROSION PROTECTION TYPE • A

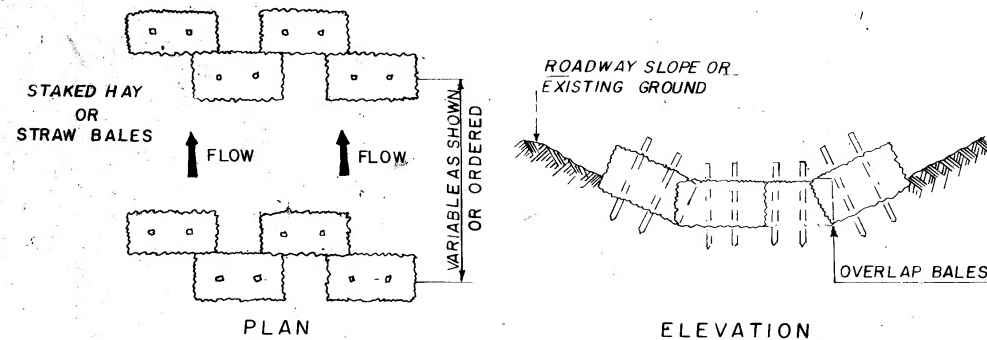


NOTE: NORMAL USE AT BOTTOM OF FILL SLOPE WHERE HEAVY FLOW MAY BE ANTICIPATED.

EROSION PROTECTION TYPE • B

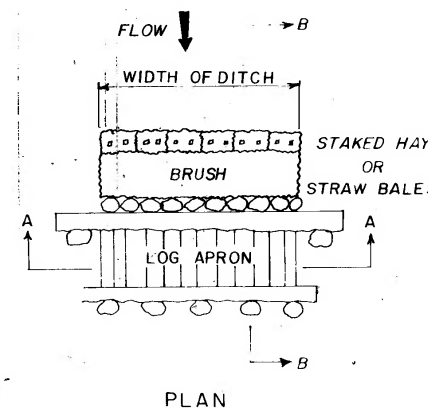


EROSION PROTECTION TYPE • C



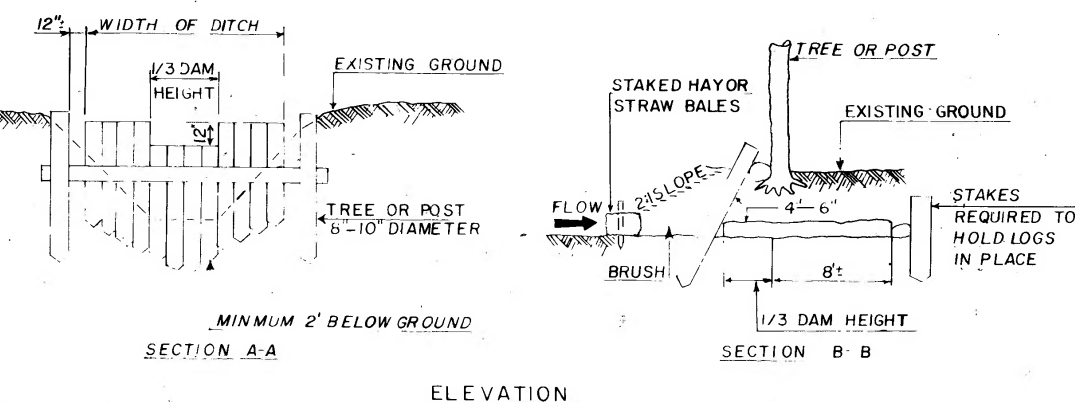
NOTE: NORMAL USE IN WIDE DITCH SECTION

EROSION PROTECTION TYPE • D



NOTE: NORMAL USE IN, OR JUST UPSTREAM OF WATER COURSE

EROSION PROTECTION TYPE • E



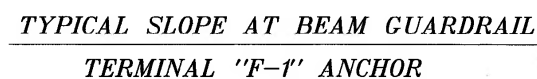
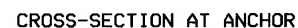
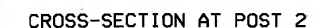
GENERAL NOTES

- ① BALED HAY AND STRAW WILL BE PAID UNDER ITEM 64551
- ② STAKES TO HOLD BALES SHALL BE 2" BY 2" OR EQUIVALENT SAPLINGS AND SHALL BE LONG ENOUGH TO EXTEND 1 FOOT MINIMUM INTO THE GROUND. STAKE, LOGS, AND BRUSH WILL BE SUBSIDIARY
- ③ BALES SHALL BE SET 3+ INCHES BELOW GROUND SURFACE OR AS ORDERED. ANY REQUIRED EXCAVATION TO SET BALES WILL BE SUBSIDIARY
- ④ HAY BALES WILL BE ALLOWED TO ROT IN PLACE EXCEPT IN HIGHLY VISIBLE AREAS WHERE THE ENGINEER MAY ORDER REMOVAL AS SUBSIDIARY WORK

STATE OF NEW HAMPSHIRE			
DEPARTMENT OF PUBLIC WORKS AND HIGHWAY S		● HIGHWAY DESIGN DIVISION	
TEMPORARY EROSION CONTROL MEASURES			
FEDERAL PROJECT NO	STATE PROJECT NO	SHEET NO	TOTAL SHEET
BRF-032-1(20)	P-43661	8	45

EXISTING DETAIL
PROPOSED DESIGN

SHEET CHECKED	DATE
AS BUILT DETAILS	DATE



WOOD POST MODIFICATION

NOTE: THE FOLLOWING OPTIONS MAY BE USED.

- 1.DRIVE POST AND EXCAVATE SUFFICIENTLY TO DRILL BOTH HOLES.
- 2.PRE-DRILLED POST. (SHALL NOT BE DRIVEN)

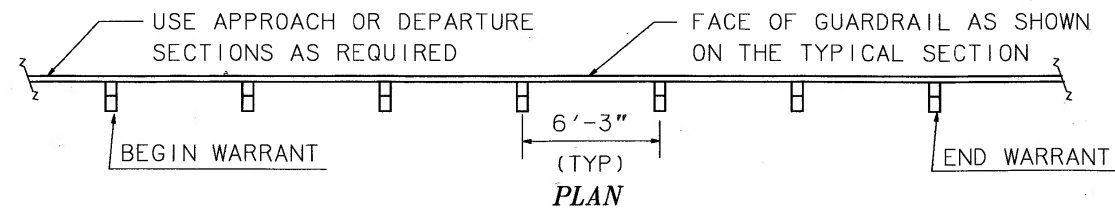
STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN

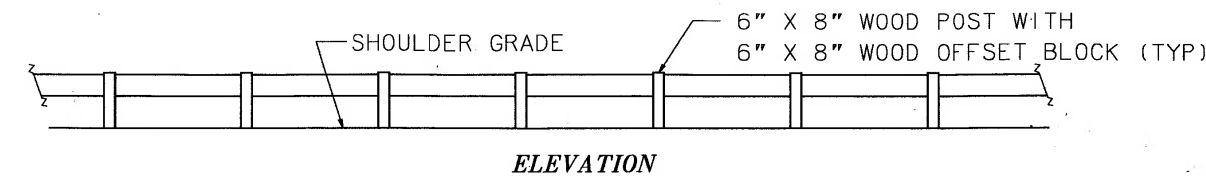
BEAM GUARDRAIL
TERMINAL UNIT TYPE F-1

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
BRF-032-1(20)	P-4366	9	45

EXISTING DETAIL		DATE					
PROPOSED DESIGN		DATE	8-20-90				
SHEET CHECKED		DATE	WJH				
AS BUILT DETAILS		DATE					
NOTEBOOKS			REVISIONS AFTER PROPOSAL				
BOOK	PAGE		NUMBER	DATE	STATION	STATION	DESCRIPTION
BOOK	PAGE						
BOOK	PAGE						
BOOK	PAGE						

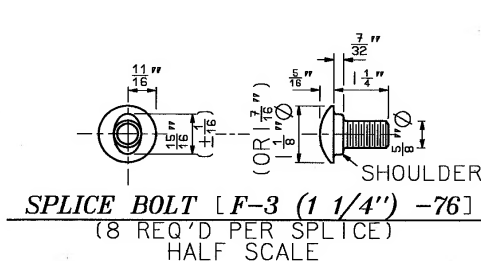


FOR THIS PROJECT, THIS SHEET
SUPERSEDES STANDARDS NO. 6 & 6A

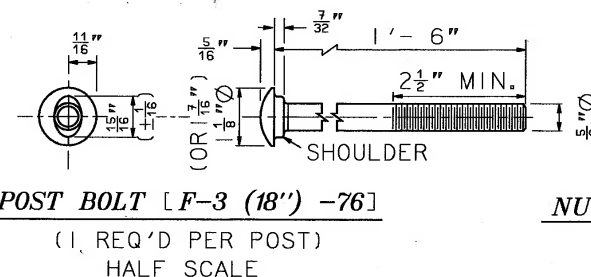


STANDARD SECTION
SCALE: 1/4" = 1'-0"

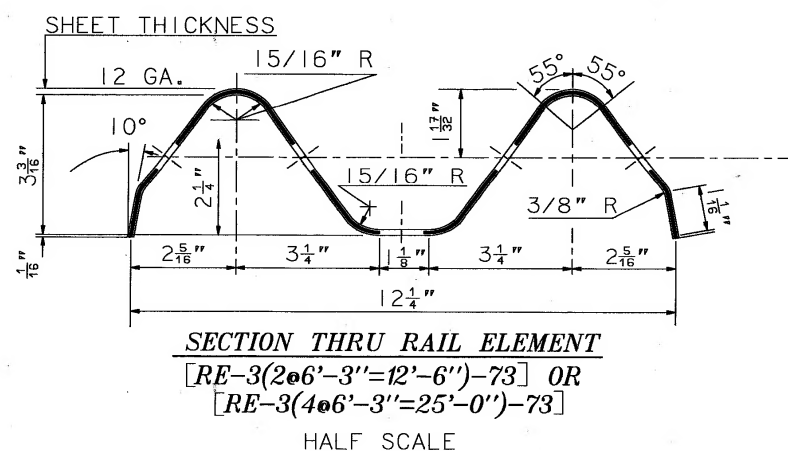
ITEM NO: 606.140 - BEAM GUARDRAIL (STANDARD SECTION) GR-140
PAID: LIN. FT.
USE: WHEREVER BEAM GUARDRAIL IS WARRANTED



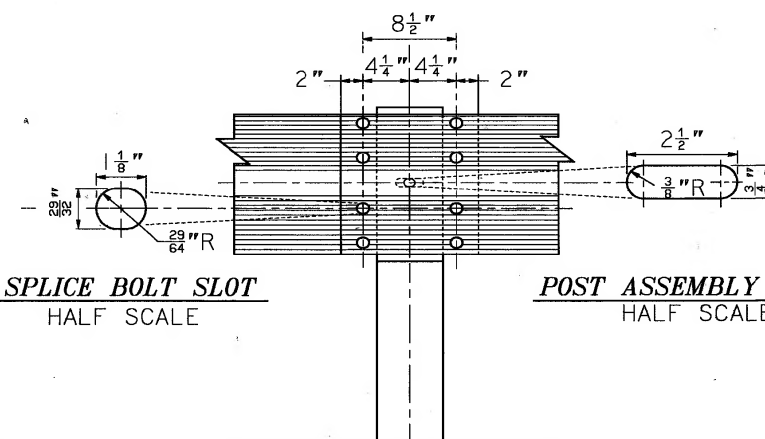
ROUND WASHER FOR 5/8" BOLT [F-13-73]
HALF SCALE



NUT FOR SPLICE & POST BOLTS
HALF SCALE



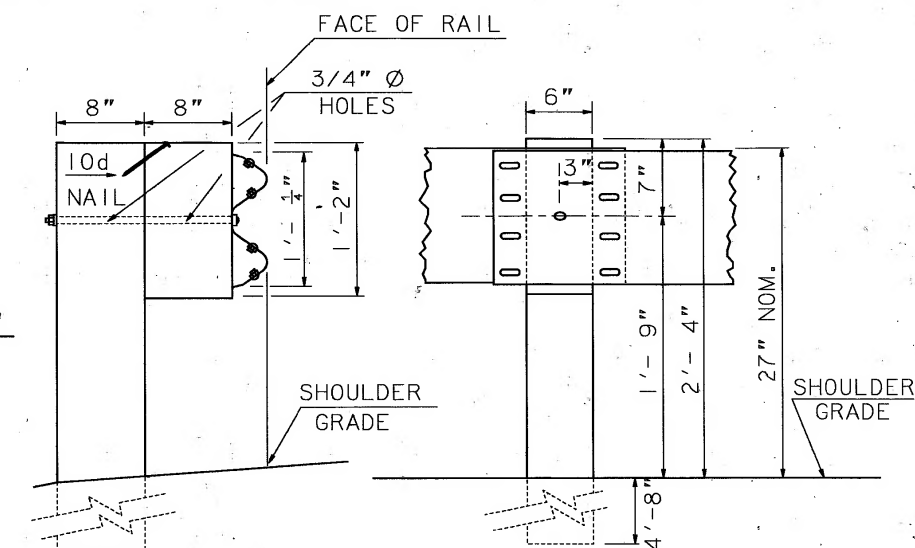
SPLICE BOLT SLOT
HALF SCALE



POST ASSEMBLY SLOT
HALF SCALE

BEAM SPLICE

SCALE: $1\frac{1}{2}'' = 1' - 0''$

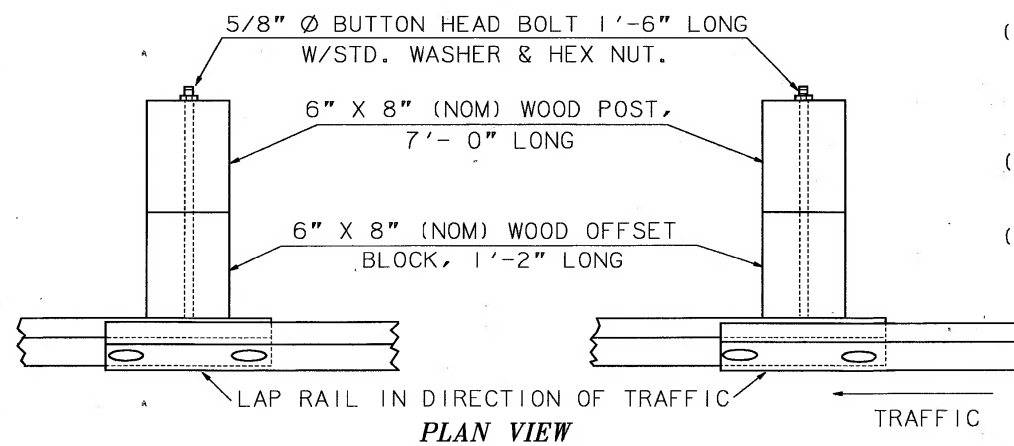


TYPICAL SIDE VIEW

LINE POST ELEVATION VIEW

GENERAL NOTES:

- (1) ALL DIMENSIONS SUBJECT TO MANUFACTURER'S TOLERANCES.
- (2) GUARDRAIL HEIGHT SHALL BE SET FROM THE GRADE AT THE FACE OF RAIL.
- (3) DESIGNATIONS PROVIDED IN BRACKETS [] RELATE TO STANDARD ELEMENTS IN "A GUIDE TO STANDARD HIGHWAY BARRIER RAIL HARDWARE", 1979, AASHTO-AGC-ARTBA JOINT COOPERATIVE COMMITTEE.
- (4) THE RECTANGULAR PLATE WASHER FORMERLY SHOWN ON STD. NO. 6A IS NO LONGER USED.
- (5) USE 12'-6" LENGTH RAIL ELEMENT IN CURVES OF LESS THAN 300' RAIL RADIUS.

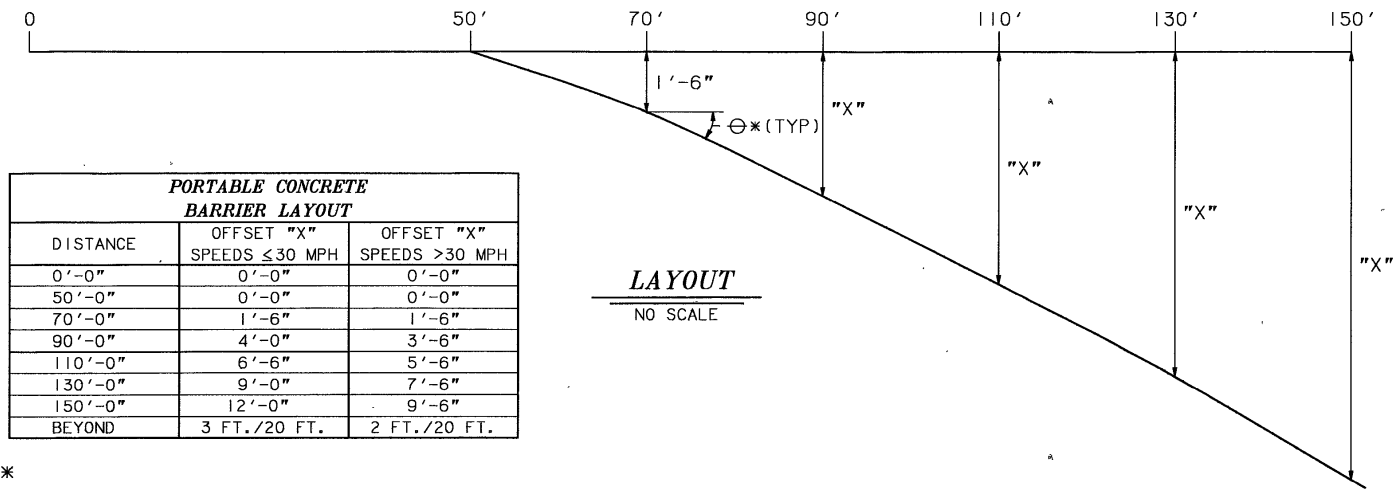


WOOD POST & OFFSET BLOCK DETAILS [P-11-79]

SCALE: 1" = 1'-0"

SHEET 4 OF 4

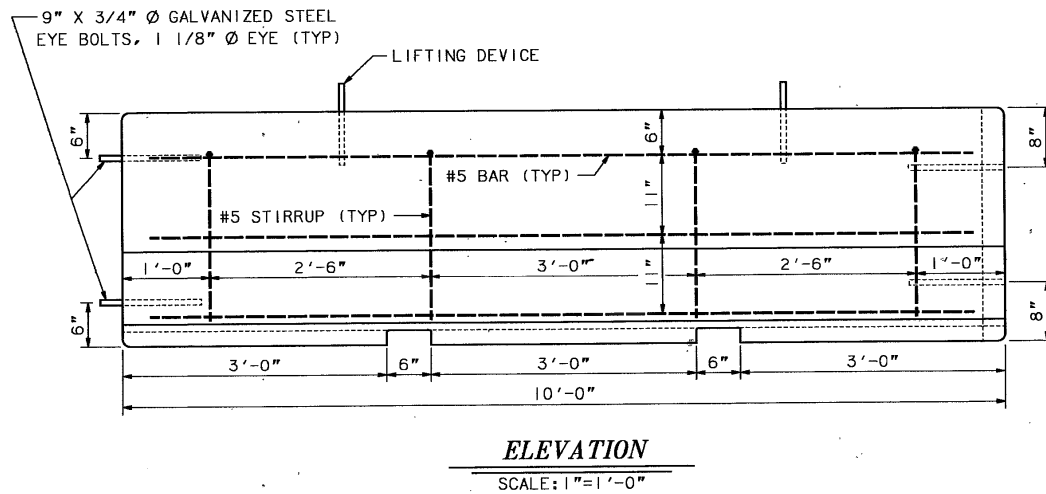
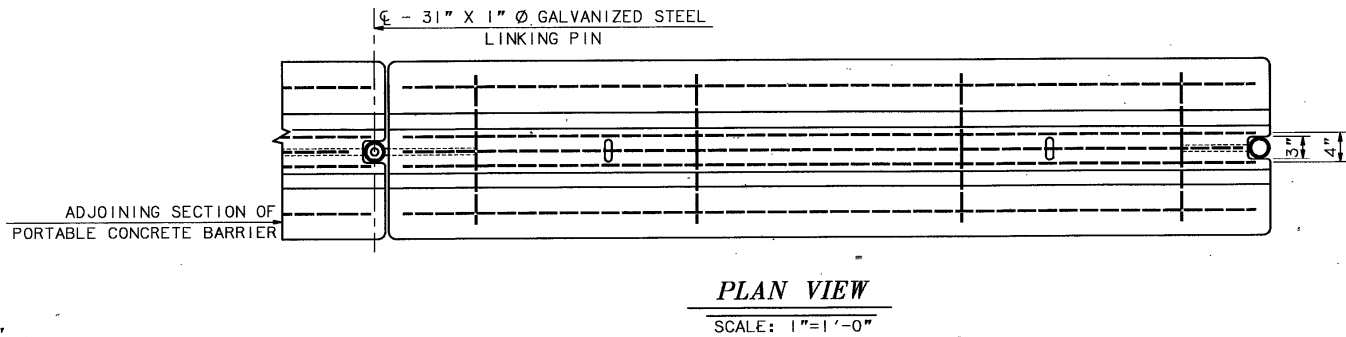
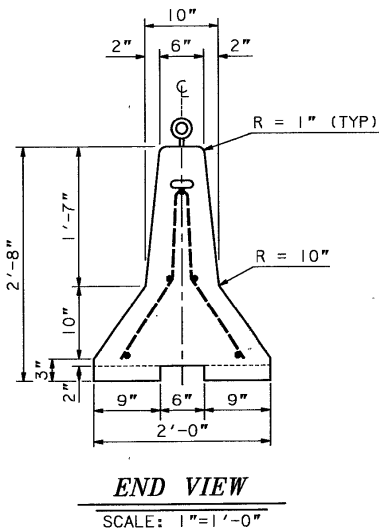
STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU HIGHWAY DESIGN			
<p align="center">BEAM GUARDRAIL ROADSIDE STANDARD SECTION & HARDWARE</p>			
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
BRF-032-1(20)	P-4366	10	45



- *(1) MEASURE OFFSETS FROM LINE PARALLEL TO ϕ ROADWAY.
(2) FOR OPERATING SPEEDS: ≥ 50 MPH, MAX $\phi = 5.7^\circ$ (10:1 TAPER RATE) USE FOR SPEEDS > 30 MPH.
(3) FOR OPERATING SPEEDS: ≤ 30 MPH, DESIRABLE $\phi = 8.1^\circ$ (7:1 TAPER RATE)

LAYOUT NOTES FOR PORTABLE CONCRETE BARRIER

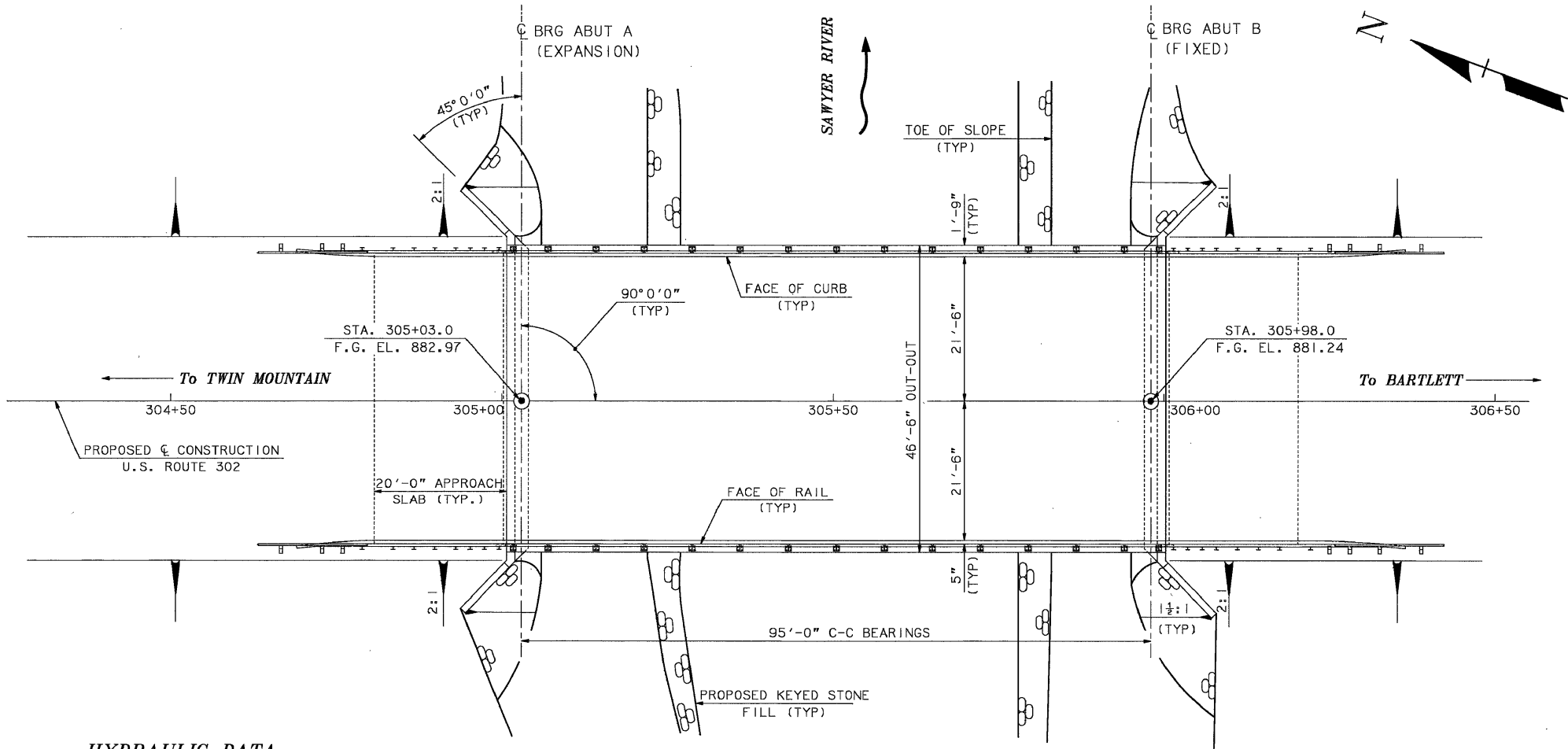
- (1) OFFSETS SHOWN IN THE ABOVE CHART ARE FROM A LINE PARALLEL TO THE ROADWAY CENTERLINE, WHETHER ON A CURVE OR TANGENT SECTION.
(2) USE ≤ 30 MPH CHART VALUES FOR BARRIER LAYOUT.
(3) CONCRETE BARRIER RAIL SHALL BE FURNISHED BY THE CONTRACTOR AND PAID AS ITEM 606.417, PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL.
(4) THE CONTRACTOR SHALL FURNISH AND INSTALL APPROVED REFLECTIVE DELINEATORS AT 25 FOOT INTERVALS ALONG THE TRAFFIC FACE OF THE PORTABLE CONCRETE BARRIER. ALL COSTS SHALL BE INCLUDED IN ITEM 606.417.
(5) TEMPORARY LIGHTS SHALL BE 250 WATT HIGH PRESSURE SODIUM LUMINAIRES WITH 40 FOOT MOUNTING HEIGHT, 12 FOOT BRACKET ARMS, AND AERIAL WIRING. PAY UNDER ITEM 1008.



PORTABLE CONCRETE BARRIER DETAILS

PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL

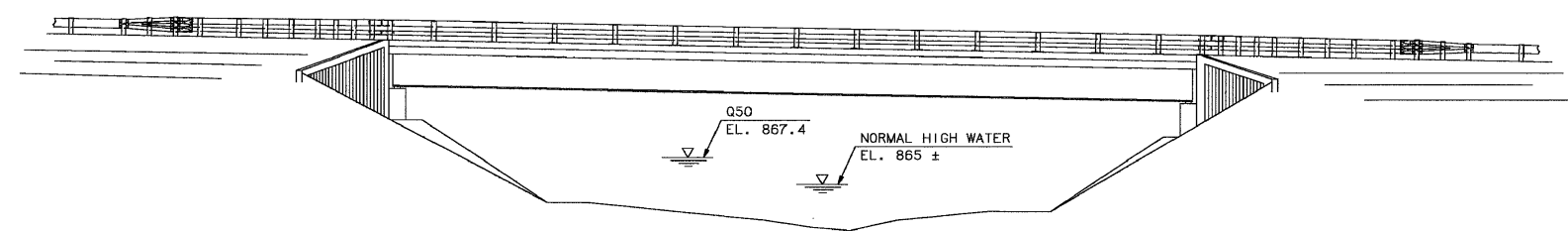
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
BRF-032-1(20)	P-4366	12	45



PLAN

HYDRAULIC DATA

- (1) DRAINAGE AREA: 23.85 SQ. MI.
- (2) DESIGN FLOOD: Q50 = 7200 cfs EL. 867.4
- (3) DESIGN VELOCITY: 15.2 fps
- (4) BRIDGE WATERWAY OPENING: 460 SQ. FT. BELOW Q50 ELEVATION 867.4



ELEVATION

GENERAL NOTES

- (1) DESIGN LOADING: HS25-44 AS MODIFIED FOR 125% OF MILITARY LOADING.
- (2) SPECIFICATIONS: AASHTO 1989 WITH INTERIMS NHDOT 1983 STANDARD SPECIFICATIONS AS AMENDED
- (3) FOUNDATION DATA: ABUTMENTS A & B - REINFORCED CONCRETE SPREAD FOOTINGS DESIGN FOUNDATION PRESSURE=3 TONS/SF
- (4) REINFORCING STEEL: AASHTO M31 (ASTM A615) GRADE 60 DECK REINFORCING STEEL SHALL BE EPOXY COATED
- (5) STRUCTURAL STEEL: AASHTO M270 GR 50W (ASTM A709, GR 50W), UNPAINTED
- (6) CONCRETE: BRIDGE DECK & ABUTMENT BACKWALLS: $f'_c = 4,000$ psi ABUTMENTS & FOOTINGS: $f'_c = 3,000$ psi
- (7) UTILITIES (BY OTHERS):
2 - 4" CONDUITS (TELEPHONE) ON UPSTREAM SIDE OF BRIDGE.
1 - 4" CONDUIT (ELECTRICAL) ON UPSTREAM SIDE OF BRIDGE.
- (8) FOR SURVEY LAYOUT SEE BR. SHEET 2 OF 20.

SUMMARY OF BRIDGE QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
207.3	UNCLASSIFIED CHANNEL EXCAVATION	650	CY
209.1	GRANULAR BACKFILL (BRIDGE)	700	CY
403.911	HOT BITUMINOUS BRIDGE PAVEMENT, 1" BASE COURSE WITH POLYESTER FIBER	27	TON
502.	REMOVAL OF EXISTING BRIDGE STRUCTURE	1	U
503.2	COFFERDAMS	1	U
504.1	COMMON BRIDGE EXCAVATION	541	CY
504.2	ROCK BRIDGE EXCAVATION	180	CY
508.	STRUCTURAL FILL	52	CY
520.12	CONCRETE CLASS A ABOVE FOOTINGS (EST. 194 CY)	1	U
520.13	CONCRETE CLASS A, APPROACH SLABS	65.2	CY
520.21	CONCRETE CLASS B, FOOTINGS	109.3	CY
520.7	CONCRETE BRIDGE DECK (EST. 135 CY)	1	U
534.3	WATER REPELLENT (SILANE - SILOXANE)	14	GAL
537.	CONCRETE SEALER	20	GAL
538.1	BARRIER MEMBRANE	476	SY
538.2	BARRIER MEMBRANE, VERTICAL SURFACES	88	SY
541.2	PVC WATERSTOPS, NH TYPE 2	39	LF
541.5	PVC WATERSTOPS, NH TYPE 5	93	LF
544.	REINFORCING STEEL	41,098	LB
544.2	REINFORCING STEEL-EPOXY COATED	41,611	LB
547.	SHEAR CONNECTORS (1,350 TOTAL)	1	U
550.1	STRUCTURAL STEEL (EST. 132,000 LBS.)	1	U
550.2	BRIDGE SHOES	1	U
562.1	ELASTOMERIC SEALANT	65	CI
563.12	BRIDGE RAILING, ST	199	LF
565.12	BRIDGE APPROACH RAIL, ST	124	LF
587.1	KEYED STONE FILL	887	CY
609.3	STRAIGHT GRANITE CURB (BRIDGE)	199	LF

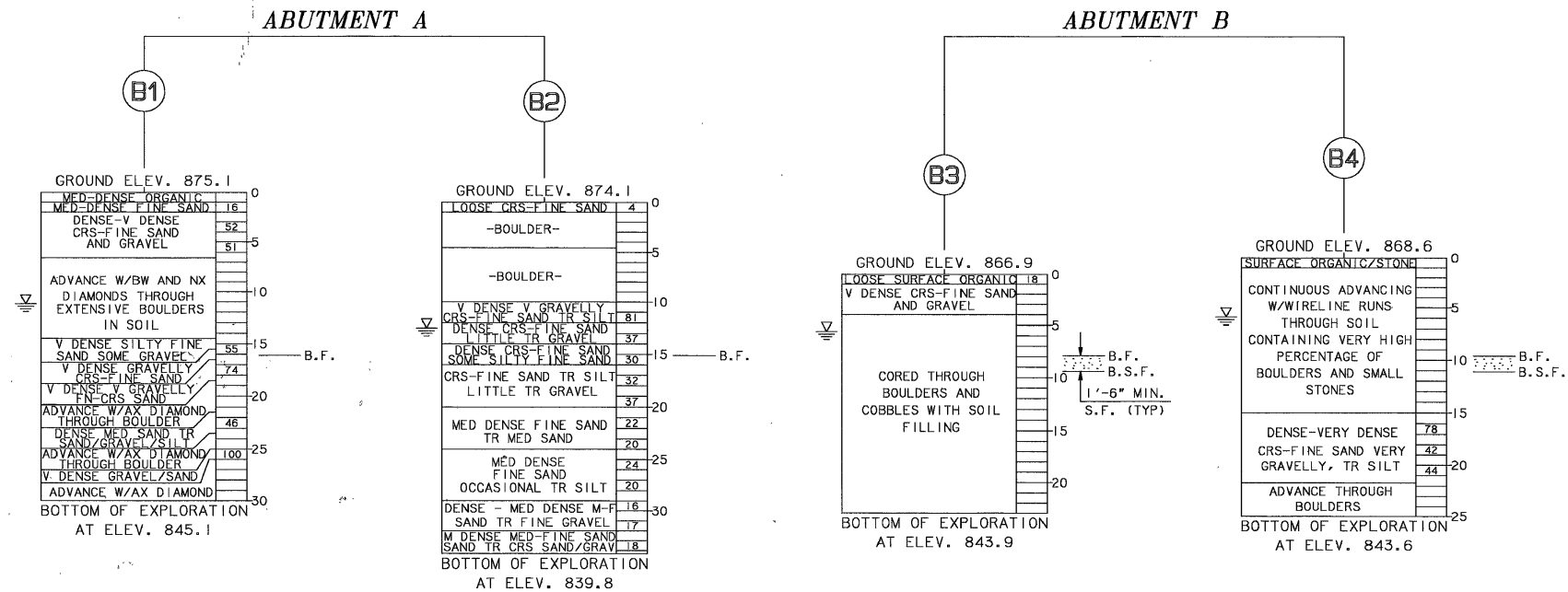
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

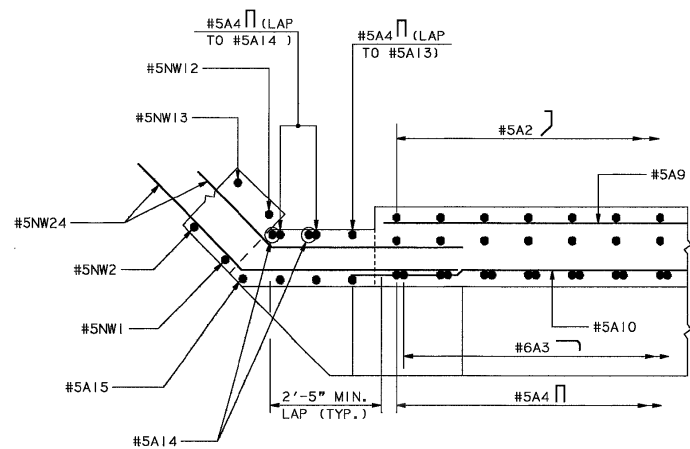
TOWN HARTS LOCATION BRIDGE NO. 235/059 STATE PROJECT P-4366
LOCATION U.S. 302 OVER SAWYER RIVER

GENERAL PLAN AND ELEVATION

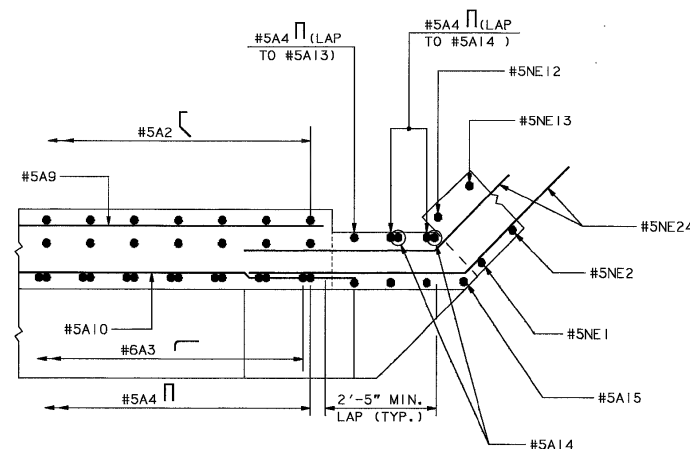
DESIGNED	JCA	3/90	CHECKED	ABP	6/90	REVISIONS AFTER PROPOSAL	DATE	BRIDGE SHEET	1 OF 20
DRAWN	TPL	2/89	CHECKED	ABP	6/90			FILE NUMBER	2-6-2-3

WINDOW NAME	DRAWING NAME	*FGB FILE NAME	SHEET SCALE	QUANTITIES	JCA	7/90	CHECKED	ABP	8/90	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
GENPLAN	GENPLAN	BR-SITE.FGB	3/32" = 1'-0"							BRF-032-1(20)	13	45

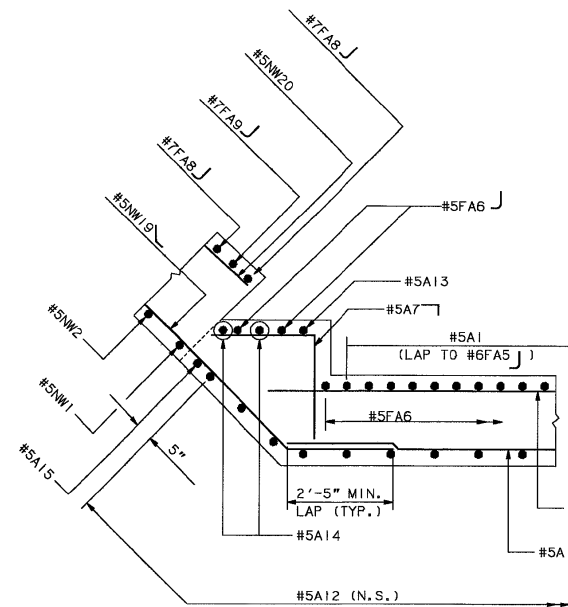




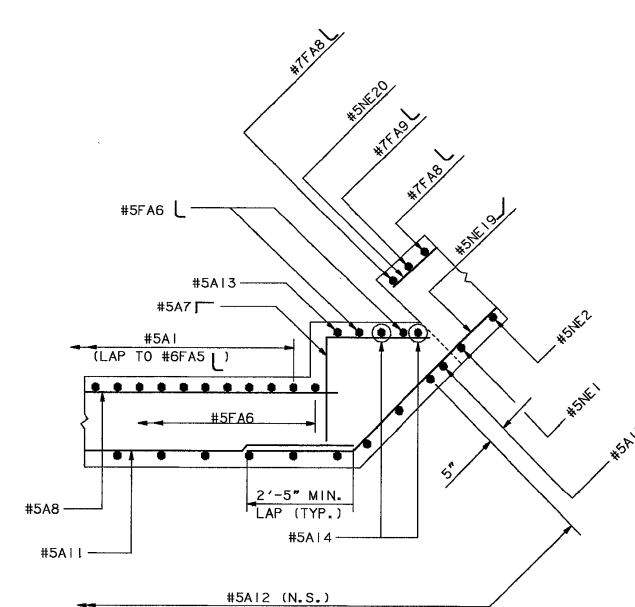
SECTION C-C
SCALE: 1/2" = 1'-0"



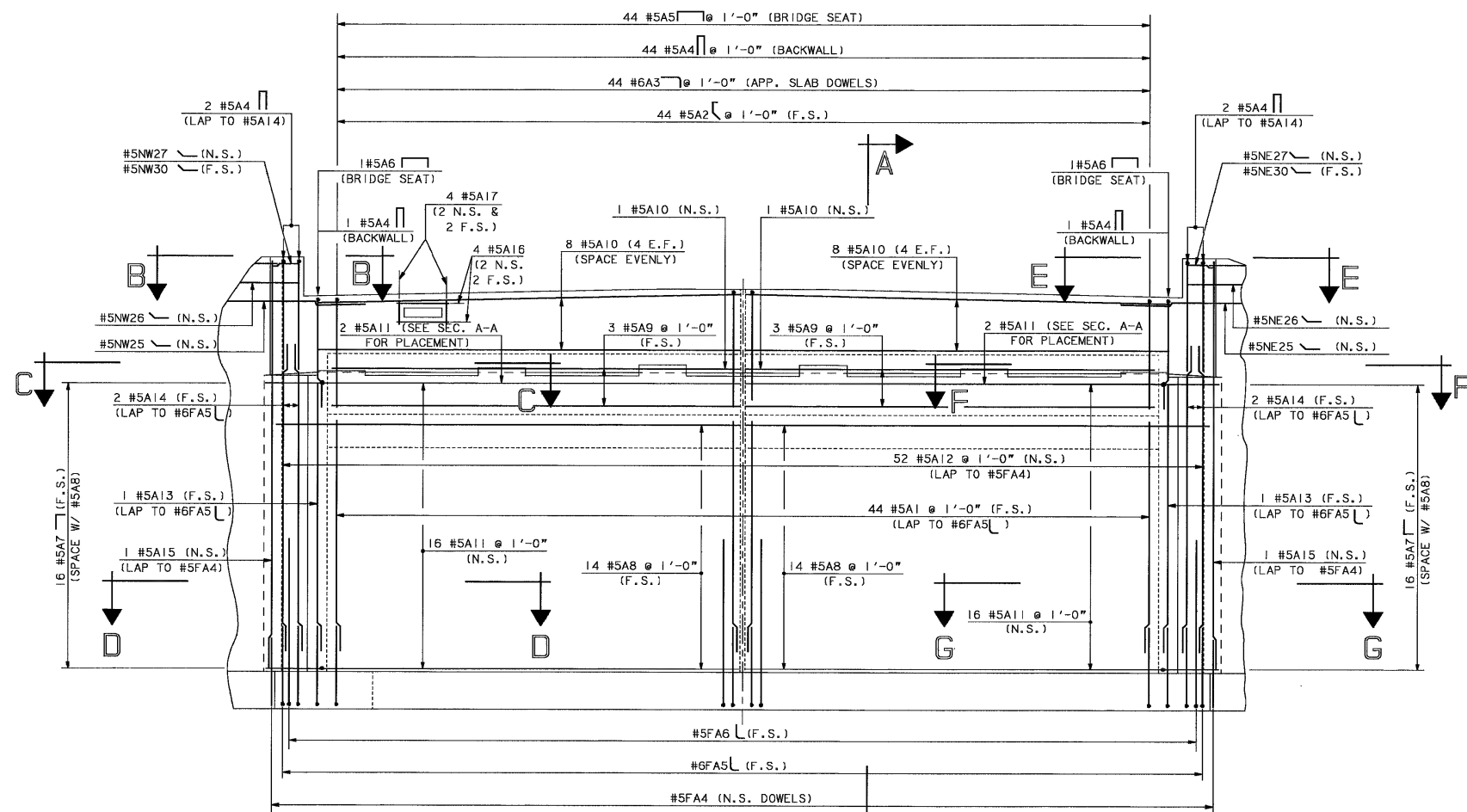
SECTION F-F
SCALE: 1/2" = 1'-0"



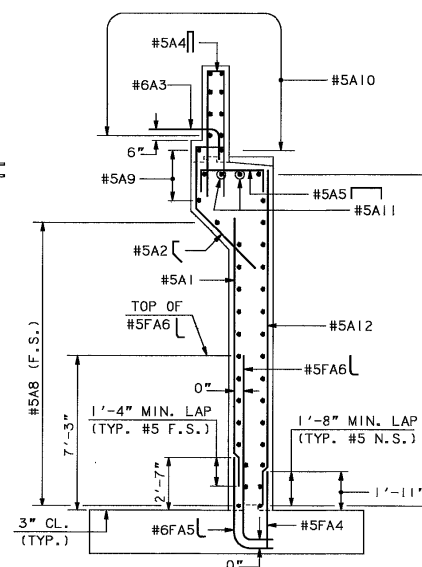
SECTION D-D
SCALE: 1/2" = 1'-0"



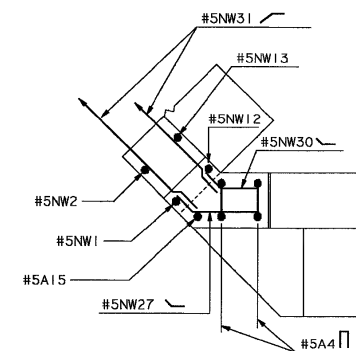
SECTION G-G
SCALE: 1/2" = 1'-0"



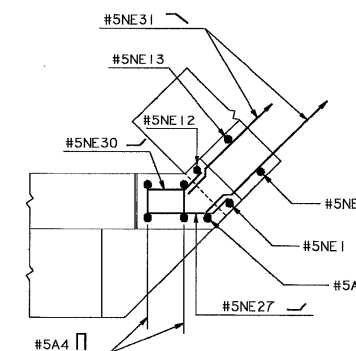
ABUTMENT A - REINFORCEMENT
SCALE: 1/4" = 1'-0"



SECTION A-A
SCALE: 1/4" = 1'-0"



VIEW B-B
SCALE: 1/2" = 1'-0"



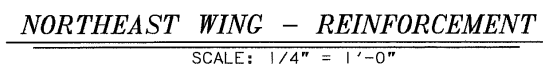
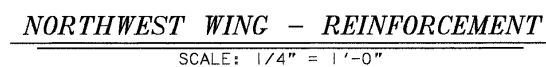
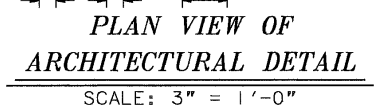
VIEW E-E
SCALE: 1/2" = 1'-0"

REINFORCEMENT NOTES

- REINFORCEMENT IN THE FOOTINGS SHALL HAVE A 3" MINIMUM CLEAR COVER. ALL OTHER REINFORCEMENT IN THE ABUTMENTS AND WINGWALLS SHALL HAVE A 2 1/2" MINIMUM CLEAR COVER UNLESS OTHERWISE NOTED.
- CUT OR ADJUST REINFORCING BARS AS REQUIRED TO CLEAR UTILITY BLOCKOUTS.

STATE OF NEW HAMPSHIRE										
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN										
TOWN	HARTS LOCATION		BRIDGE NO.		235/059		STATE PROJECT		P-4366	
LOCATION			U.S. 302 OVER SAWYER RIVER							
ABUTMENT A - REINFORCEMENT										BRIDGE SHEET
	BY	DATE		BY	DATE	REVISIONS AFTER PROPOSAL		DATE	6 OF 20	
DESIGNED	JCA	4/90	CHECKED	ABP	7/90				FILE NUMBER	
DRAWN	JCA	4/90	CHECKED	ABP	7/90				2-6-2-	
TRACED			CHECKED			FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS	
QUANTITIES	JCA	7/90	CHECKED	ABP	7/90	BRF-032-1 (20)		18	45	

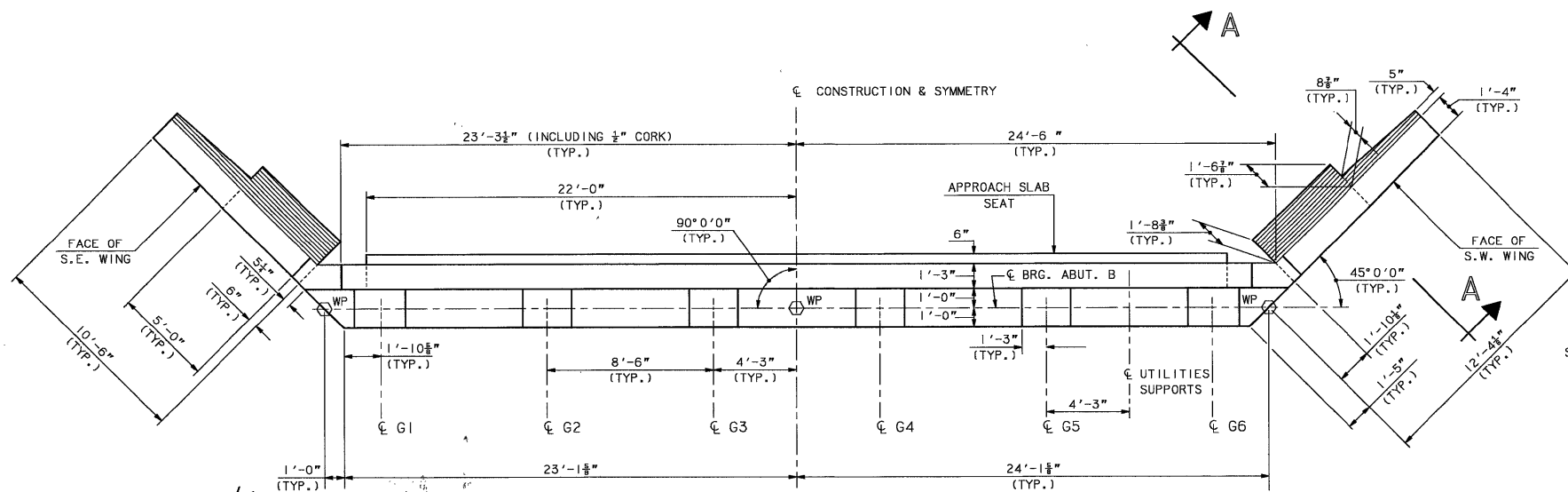
WINDOW NAME	DRAWING NAME	*FGB FILE NAME	SHEET SCALE
A-REBAR	A-REBAR	ABUT-A.FGB	AS NOTED



NOTES:
(1) SEE BRIDGE SHEET 6 OF 20 FOR REINFORCEMENT NOTES.

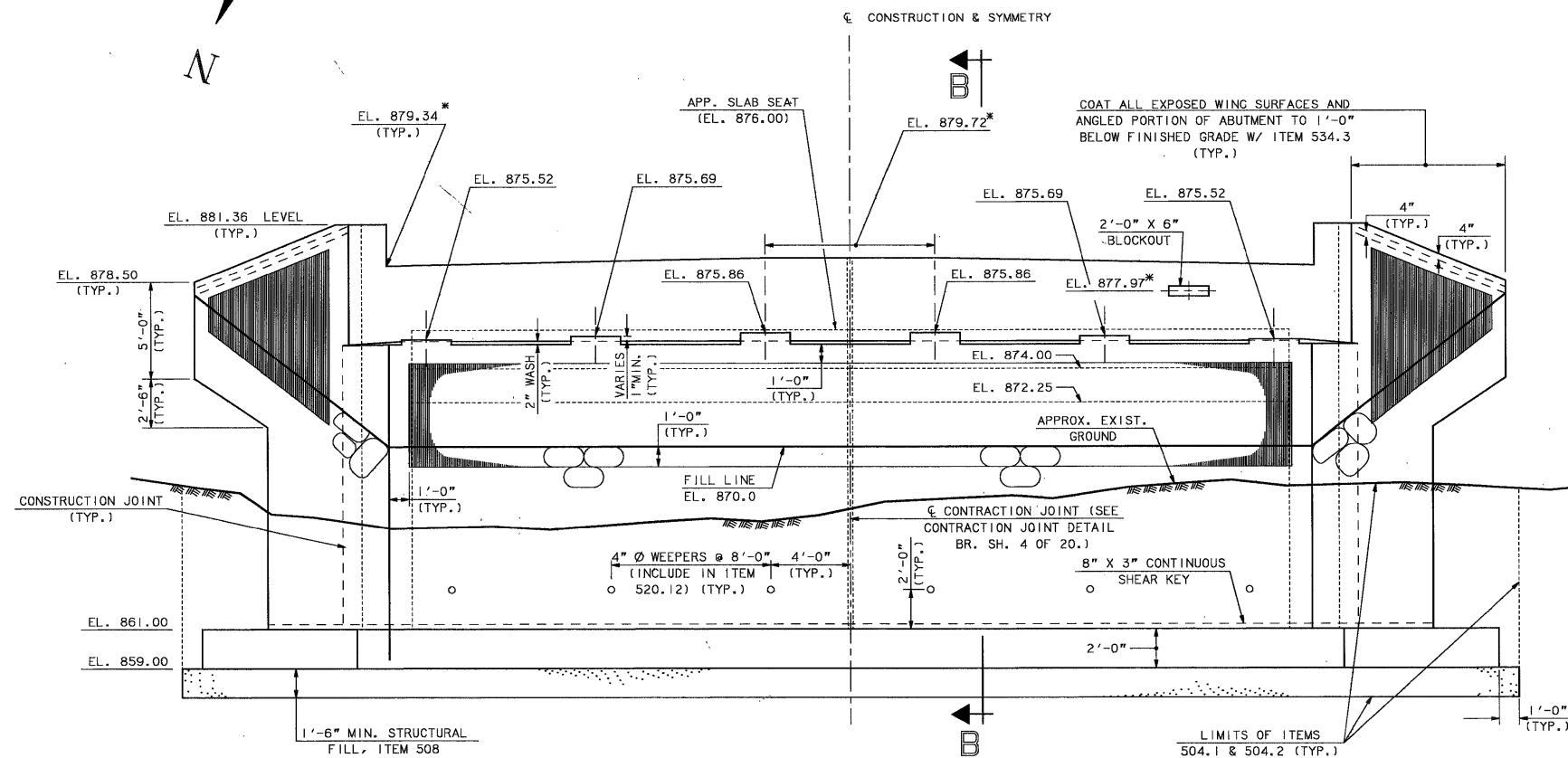
STATE OF NEW HAMPSHIRE											
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN											
TOWN		HARTS LOCATION		BRIDGE NO.		235/059		STATE PROJECT		P-4366	
LOCATION				U.S. 302 OVER SAWYER RIVER							
ABUTMENT A - WINGWALLS										BRIDGE SHEET	
										7 OF 20	
BY		DATE		BY		DATE		REVISIONS AFTER PROPOSAL		DATE	
DESIGNED		JCA 4/90		CHECKED		ABP 7/90					
DRAWN		JCA 4/90		CHECKED		ABP 7/90					
TRACED				CHECKED				FEDERAL PROJECT NO.		SHEET NO.	
QUANTITIES		JCA 7/90		CHECKED		ABP 7/90		BRF-032-1 (20)		19	
										TOTAL SHEETS	
										45	

WINDOW NAME	DRAWING NAME	*FGB FILE NAME	SHEET SCALE
A-WINGS	A-WINGS	ABUT-A.FGB	AS NOTED



ABUTMENT B - PLAN

SCALE: 1/4" = 1'-0"



ABUTMENT B - ELEVATION

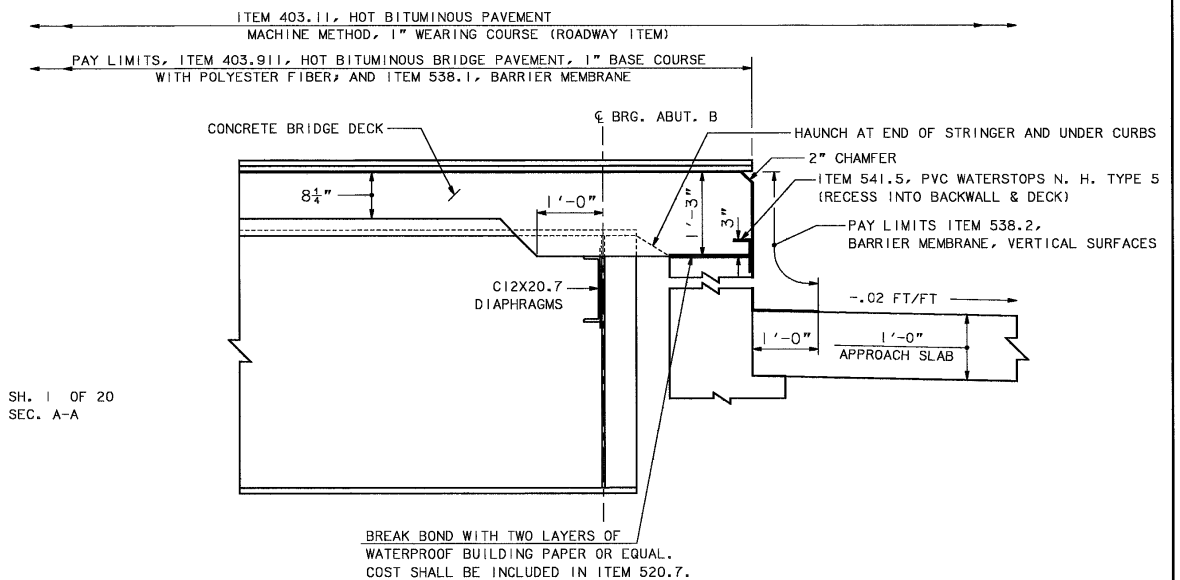
SCALE: 1/4" = 1'-0"

ABUTMENT NOTES

- (1) AT THE CONTRACTOR'S OPTION, THE BROKEN-BACK CONFIGURATION OF THE ABUTMENTS MAY BE ELIMINATED & THE ABUTMENTS POURED VERTICALLY FROM THE TOP OF FOOTING TO THE BRIDGE SEAT CONSTRUCTION JOINT. IF THE CONTRACTOR CHOOSES THIS OPTION: 1) NO ADJUSTMENTS IN CONTRACT UNIT PRICE WILL BE MADE FOR THE ADDITIONAL CONCRETE REQUIRED; 2) THE BUREAU OF BRIDGE DESIGN SHALL BE CONTACTED FOR APPROVAL OF THE REINFORCING STEEL LAYOUT.
- (2) THE BEARING PEDESTALS SHALL BE POURED 1/4"± LOWER THAN PLAN ELEVATIONS AND THEN GROUND LEVEL. ELEVATIONS SHALL THEN BE TAKEN AT EACH PEDESTAL AND A SHIM ORDERED OF A THICKNESS EQUAL TO THE DIFFERENCE BETWEEN THE ACTUAL AND PLAN ELEVATIONS. COST OF THE SHIM PLATES SHALL BE INCLUDED IN ITEM 550.2, BRIDGE SHOES.
AT THE CONTRACTOR'S OPTION THE BEARING PEDESTALS MAY BE POURED SLIGHTLY HIGH AND THEN THE ENTIRE PEDESTAL SURFACE MACHINE DRESSED TO THE EXACT ELEVATION. PLACE REINFORCING STEEL TO CLEAR ANCHOR BOLTS.

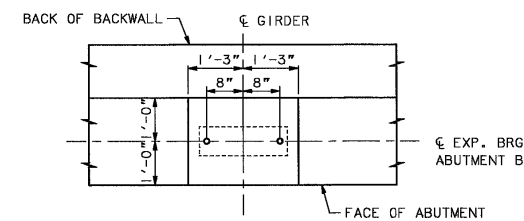
- (3) ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4".
- (4) THE CONCRETE IN THE BACKWALLS AND WINGS ABOVE THE BEARING SEAT CONSTRUCTION JOINT SHALL BE THE SAME MIX AS THAT IN THE BRIDGE DECK. COST SHALL BE INCLUDED IN ITEM 520.12.
- (5) MASONRY BLOCKING SHALL BE USED AS NECESSARY ON THE APPROACH SLABS TO SUPPORT THE APPROACH CURB. COST SHALL BE INCLUDED IN ITEM 520.13.
- (6) ITEM 538.2, BARRIER MEMBRANE VERTICAL SURFACES, SHALL BE PLACED OVER THE BEARING SEAT CONSTRUCTION JOINT AND OVER THE CONSTRUCTION JOINT AT THE BACK OF THE ABUTMENT BACKWALL. (CENTER MEMBRANE ABOUT JOINTS)

- (7) ITEM 537, CONCRETE SEALER, SHALL BE APPLIED TO FACE OF BACKWALL, WASH AND BEAM SEAT (INCL. UNDERNEATH BRIDGE SHOES) AND FACE OF ABUTMENT TO 1'-0" BELOW FILL LINE.
- (8) ITEM 534.3, WATER REPELLENT (SILANE - SILOXANE), SHALL BE APPLIED TO ALL EXPOSED WINGWALL SURFACES AND ANGLED ABUTMENT PORTIONS TO 1'-0" BELOW THE FILL LINES.
- (9) ALL FOOTING CONCRETE SHALL BE PAID AS ITEM 520.21, CONCRETE CLASS B, FOOTINGS. ALL OTHER CONCRETE IN THE ABUTMENT AND WINGWALLS SHALL BE PAID AS ITEM 520.12, CONCRETE CLASS A, ABOVE FOOTINGS.
- (10) COMPLETELY GROUT TELEPHONE AND ELECTRICAL DUCTS IN BACKWALL. PLACING OF DUCTS AND GROUT SHALL BE BY THE UTILITIES.



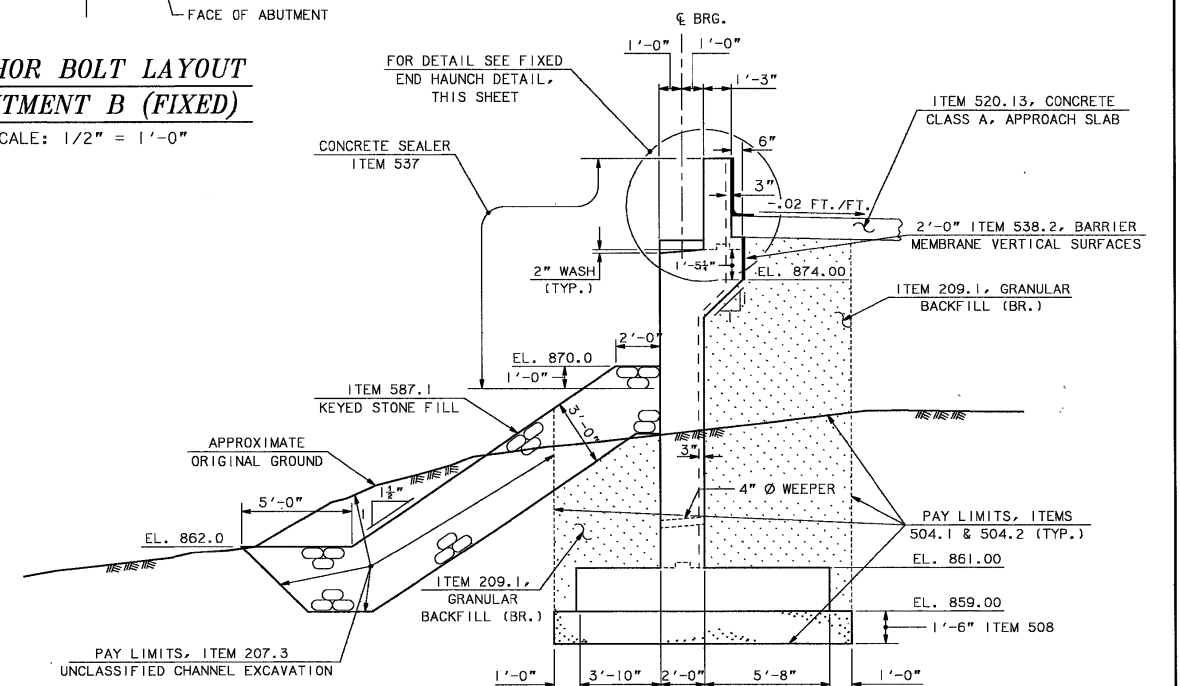
TYPICAL FIXED END HAUNCH DETAIL

SCALE: 3/4" = 1'-0"
(NORMAL TO C BEARING)



**ANCHOR BOLT LAYOUT
ABUTMENT B (FIXED)**

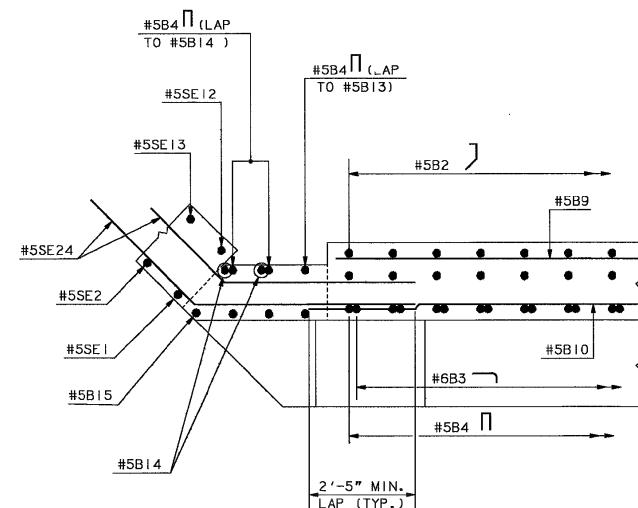
SCALE: 1/2" = 1'-0"



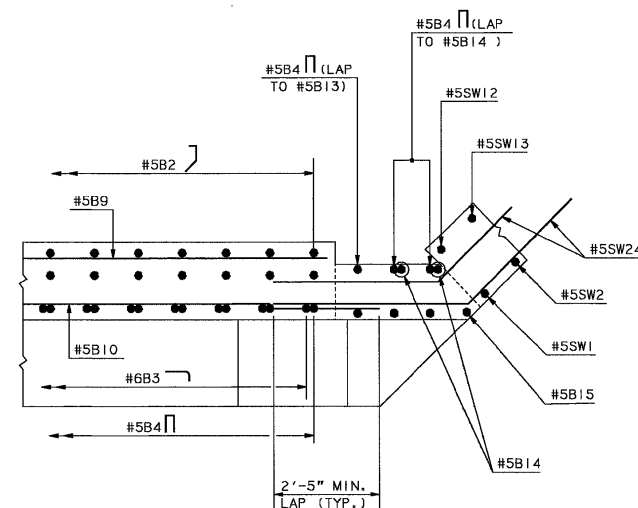
SECTION B-B

SCALE: 1/4" = 1'-0"

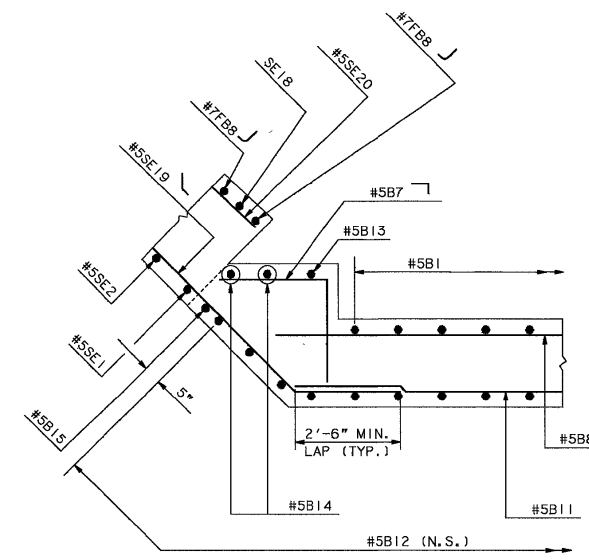
STATE OF NEW HAMPSHIRE																	
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN																	
TOWN		HARTS LOCATION		BRIDGE NO.		235/059		STATE PROJECT		P-4366							
LOCATION				U.S. 302 OVER SAWYER RIVER													
ABUTMENT B - MASONRY										BRIDGE SHEET							
		BY		DATE		BY		DATE		REVISIONS AFTER PROPOSAL		DATE		9 of 20			
DESIGNED		JCA		5/90		CHECKED		ABP		8/90						FILE NUMBER	
DRAWN		JCA		5/90		CHECKED		ABP		8/90						2-6-2-3	
TRACED						CHECKED						FEDERAL PROJECT NO.		SHEET NO.		TOTAL SHEETS	
QUANTITIES		JCA		7/90		CHECKED		ABP		8/90		BRF-032-1 (20)		21		45	



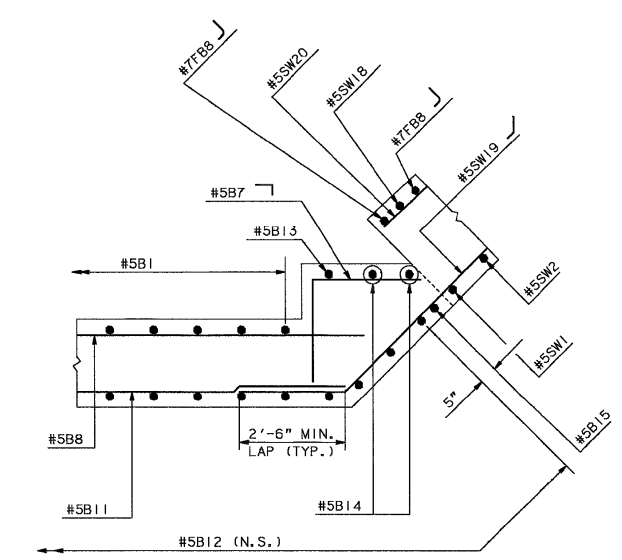
SECTION C-C
SCALE: 1/2" = 1'-0"



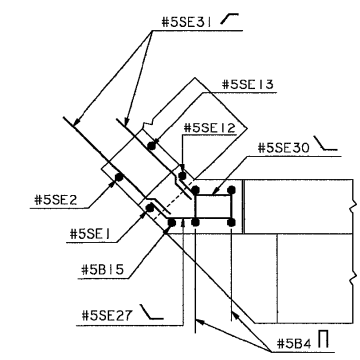
SECTION F-F
SCALE: 1/2" = 1'-0"



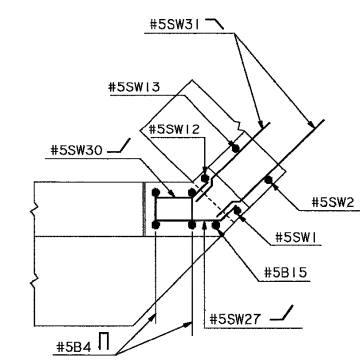
SECTION D-D
SCALE: 1/2" = 1'-0"



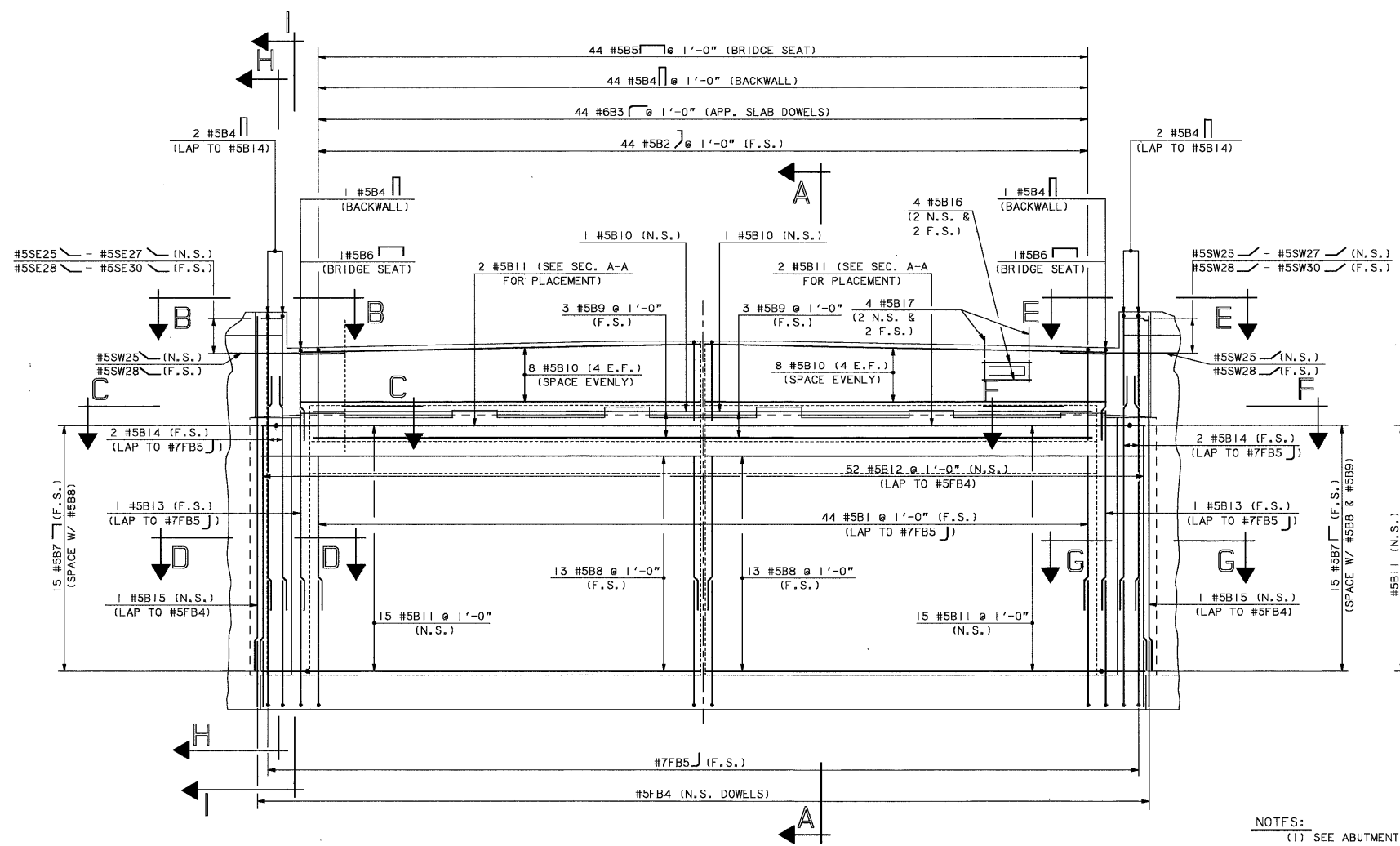
SECTION G-G
SCALE: 1/2" = 1'-0"



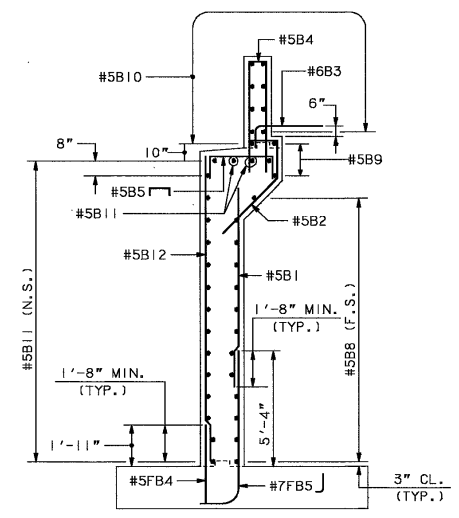
VIEW B-B
SCALE: 1/2" = 1'-0"



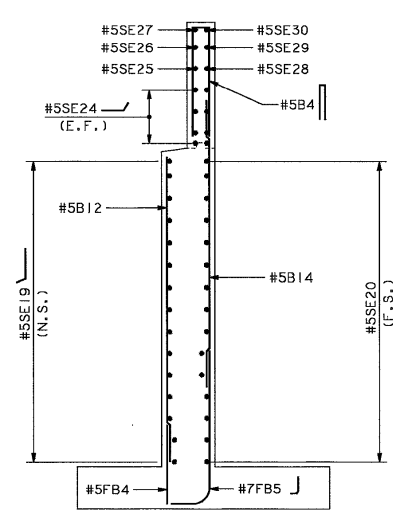
VIEW E-E
SCALE: 1/2" = 1'-0"



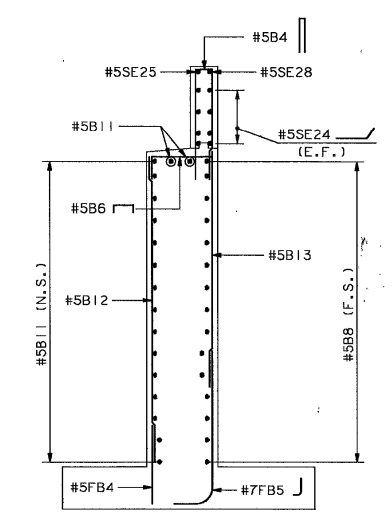
ABUTMENT B - REINFORCEMENT
SCALE: 1/4" = 1'-0"



SECTION A-A
SCALE: 1/4" = 1'-0"



SECTION H-H
SCALE: 1/4" = 1'-0"

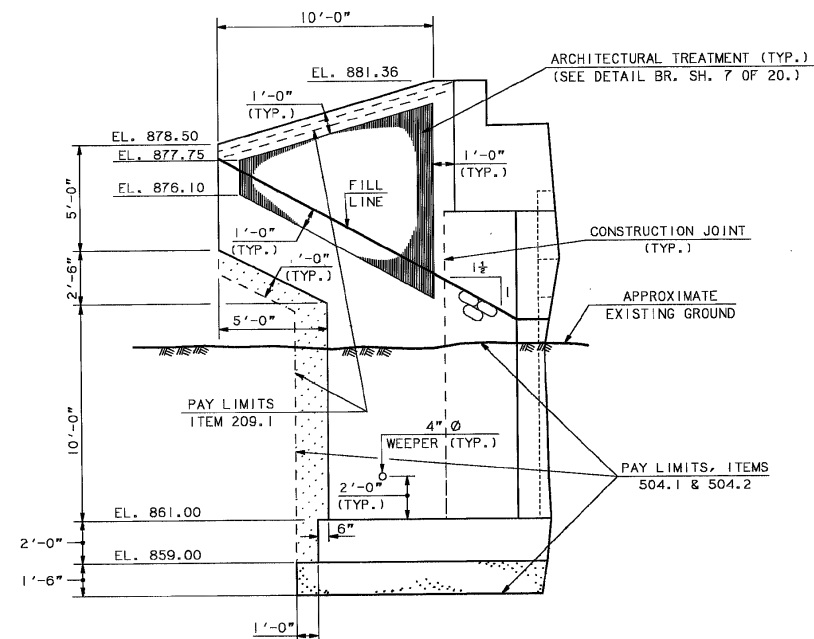


SECTION I-I
SCALE: 1/4" = 1'-0"

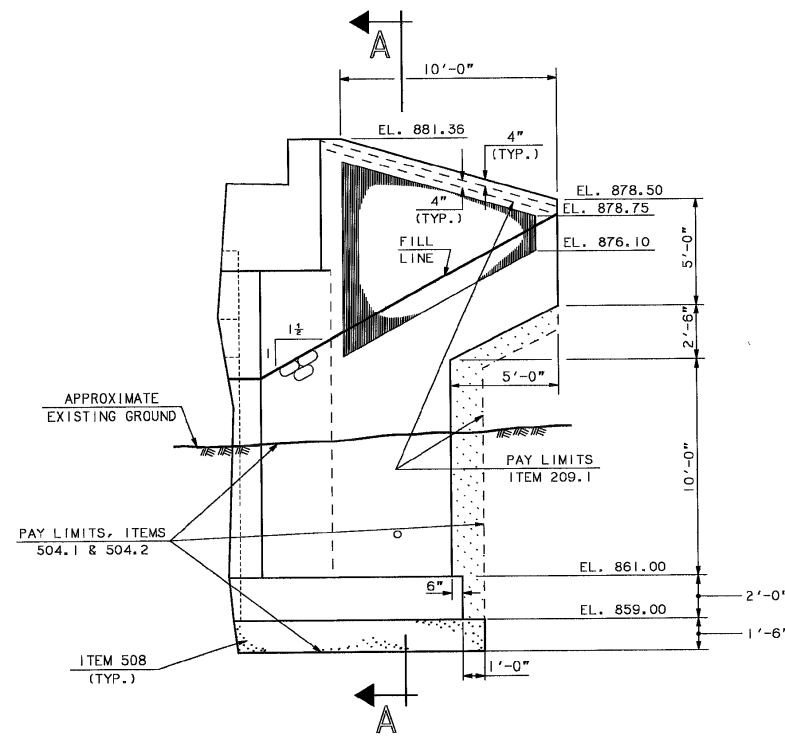
NOTES:
(1) SEE ABUTMENT REINFORCEMENT NOTES
ON BRIDGE SHEET 6 OF 20.

STATE OF NEW HAMPSHIRE													
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN													
TOWN		HARTS LOCATION		BRIDGE NO.		235/059		STATE PROJECT		P-4366			
LOCATION		U.S. 302 OVER SAWYER RIVER											
ABUTMENT B - REINFORCEMENT										BRIDGE SHEET			
BY		DATE		BY		DATE		REVISONS AFTER PROPOSAL		DATE		10 OF 20	
DESIGNED		JCA		4/90		CHECKED		ABP		8/90		FILE NUMBER	
DRAWN		JCA		5/90		CHECKED		ABP		8/90		2-6-2-3	
TRACED		JCA		7/90		CHECKED		ABP		8/90		TOTAL SHEETS	
QUANTITIES		JCA		7/90		CHECKED		ABP		8/90		45	
FEDERAL PROJECT NO.										SHEET NO.		TOTAL SHEETS	
BRF-032-1 (20)										22		45	

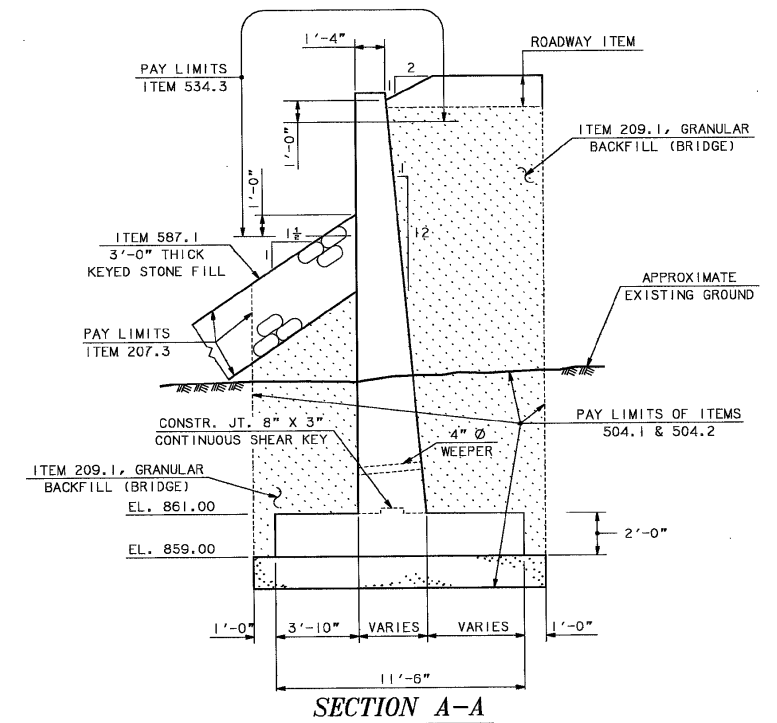
WINDOW NAME	DRAWING NAME	*FGB FILE NAME	SHEET SCALE
B-REBAR	B-REBAR	ABUT-B.FGB	AS NOTED



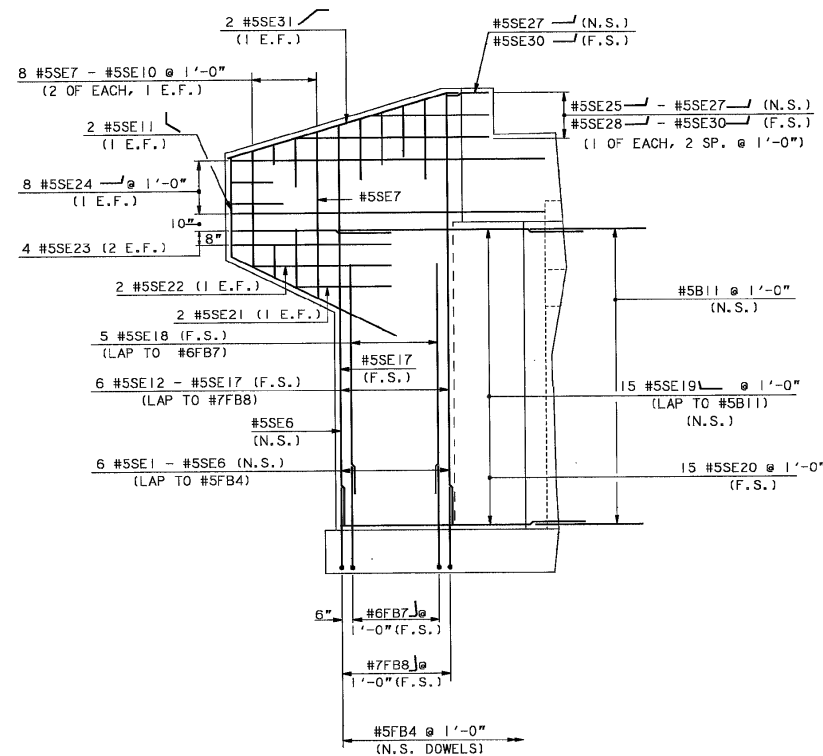
SOUTHEAST WING - ELEVATION



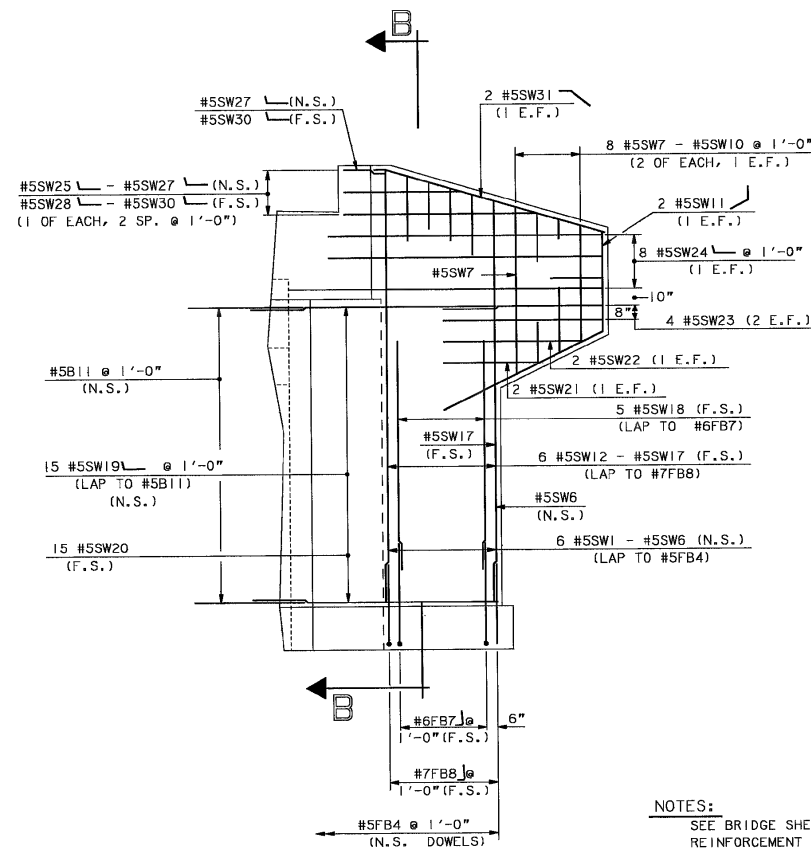
SOUTHWEST WING - ELEVATION



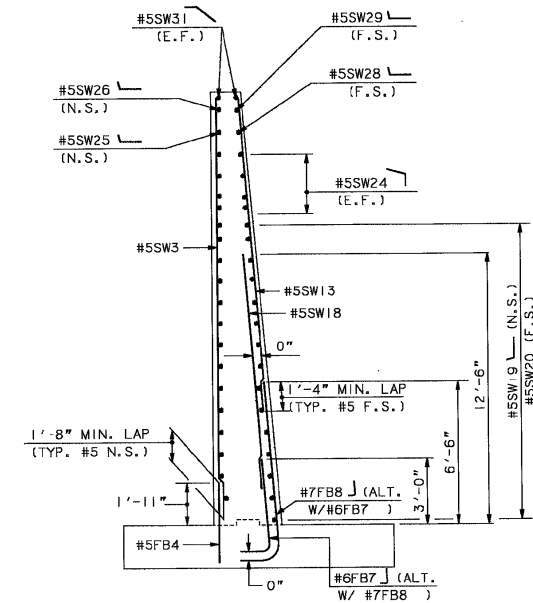
SECTION A-A



SOUTHEAST WING - REINFORCEMENT



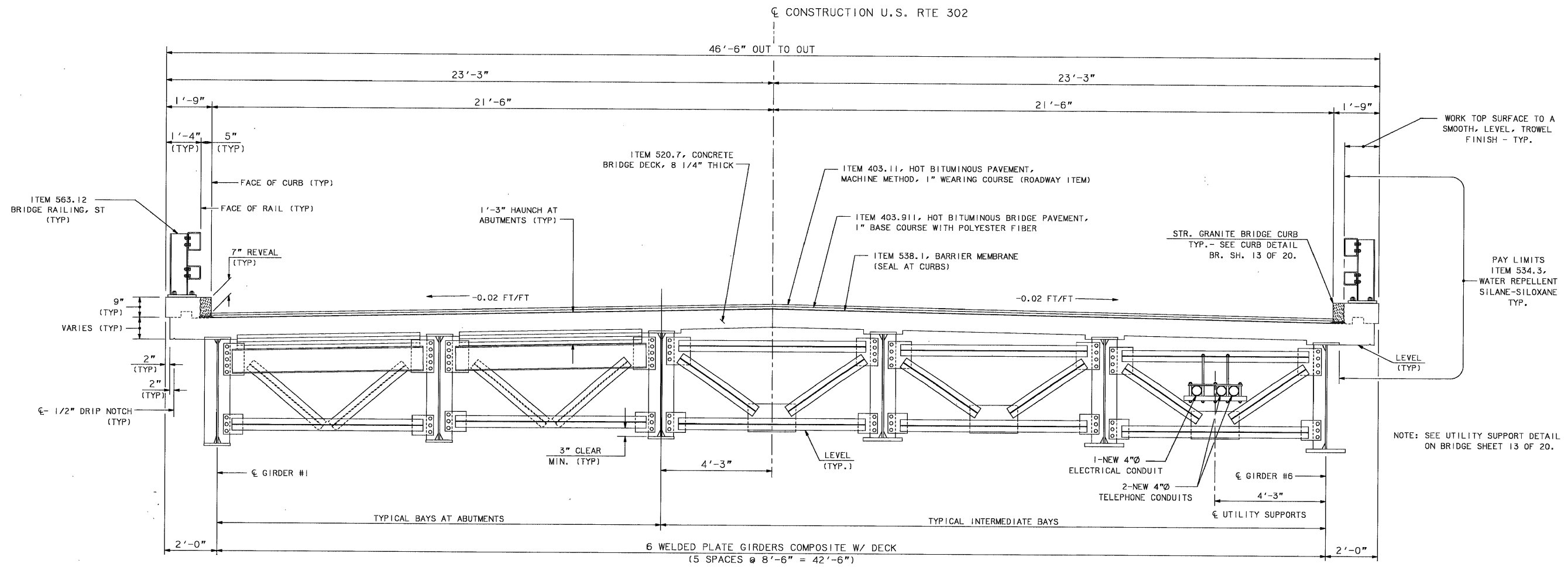
SOUTHWEST WING - REINFORCEMENT



SECTION B-B

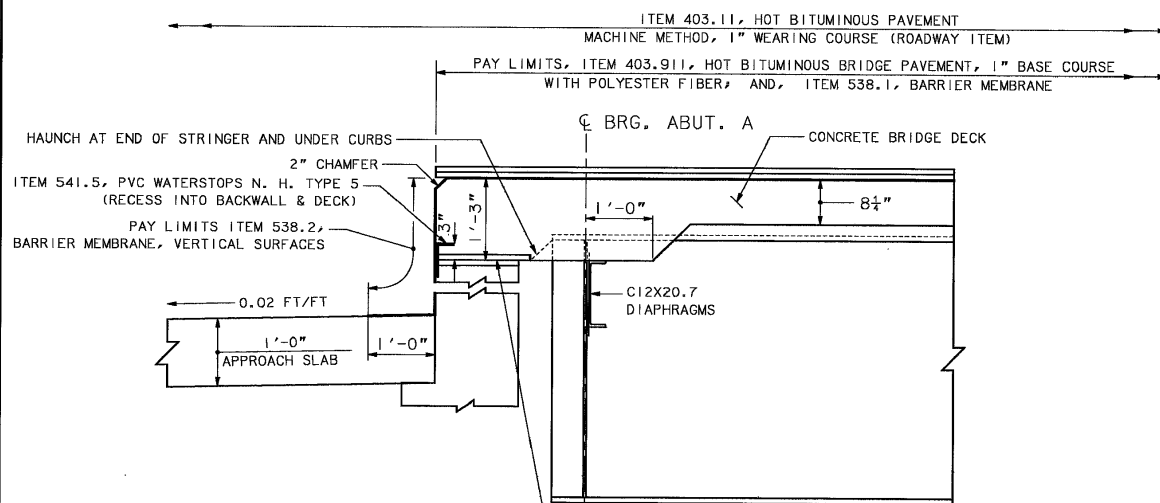
NOTES:
SEE BRIDGE SHEET 6 OF 20 FOR REINFORCEMENT NOTES.

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	HARTS LOCATION	BRIDGE NO.	235/059	STATE PROJECT	P-4366				
LOCATION						U.S. 302 OVER SAWYER RIVER			
ABUTMENT B - WINGWALLS								BRIDGE SHEET	
DESIGNED	JCA	5/90	CHECKED	ABP	8/90	REVISIONS AFTER PROPOSAL	DATE	11 OF 20	
DRAWN	JCA	5/90	CHECKED	ABP	8/90			FILE NUMBER	2-6-2-3
QUANTITIES	JCA	7/90	CHECKED	ABP	8/90			TOTAL SHEETS	45
						FEDERAL PROJECT NO.	SHEET NO.		
						BRF-032-1 (20)	23		



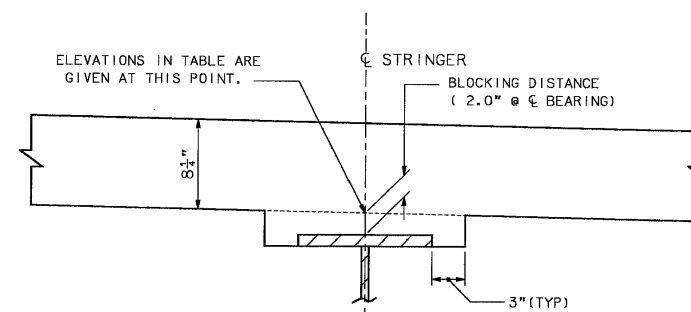
TYPICAL DECK SECTION

SCALE: 1/2" = 1'-0"



TYPICAL EXPANSION END HAUNCH DETAIL

SCALE: 3/4" = 1'-0"
(NORMAL TO CL BEARING)



HAUNCH DETAIL

SCALE: 1/2" = 1'-0"

ELEVATIONS AT BOTTOM OF CONCRETE DECK SLAB													
GIRDER	ABUT. A	0.1 L	0.2 L	0.3 L	0.4 L	0.5 L	0.6 L	0.7 L	0.8 L	0.9 L	ABUT. B		
#1	881.68	881.59	881.49	881.37	881.23	881.06	880.88	880.67	880.45	880.21	879.95		
#2	881.85	881.76	881.66	881.54	881.40	881.23	881.05	880.84	880.62	880.38	880.12		
#3	882.02	881.93	881.83	881.71	881.57	881.40	881.22	881.01	880.79	880.55	880.29		
#4	882.02	881.93	881.83	881.71	881.57	881.40	881.22	881.01	880.79	880.55	880.29		
#5	881.85	881.76	881.66	881.54	881.40	881.23	881.05	880.84	880.62	880.38	880.12		
#6	881.68	881.59	881.49	881.37	881.23	881.06	880.88	880.67	880.45	880.21	879.95		

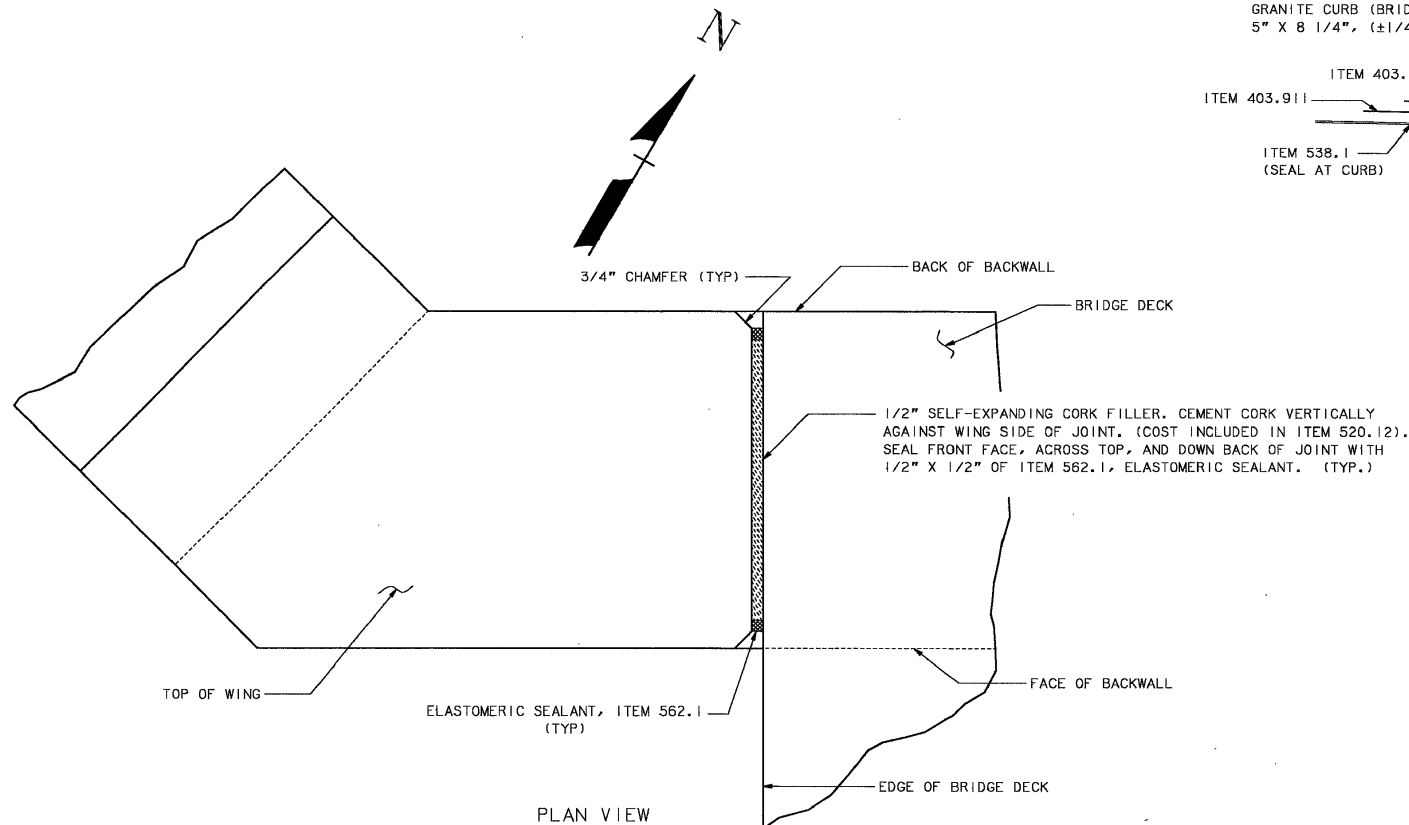
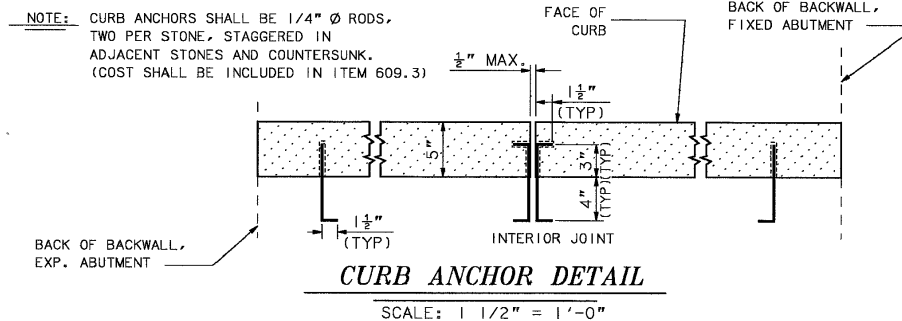
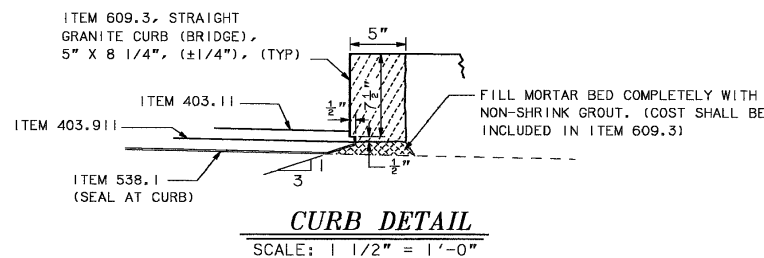
DECK ELEVATION NOTES

- (1) AFTER THE STRUCTURAL STEEL IS ERECTED BUT BEFORE THE DECK FORMS ARE BUILT, ELEVATIONS ON THE TOP FLANGE OF THE GIRDERS ARE TO BE OBTAINED AT THE POINTS INDICATED IN THE TABLE. THE DIFFERENCE BETWEEN THE ELEVATIONS OBTAINED AND THOSE SHOWN IN THE TABLE IS THE ACTUAL BLOCKING DISTANCE FROM THE TOP CL OF THE GIRDER TO THE BOTTOM OF THE DECK AT THE CL OF THE GIRDER. SEE ELEVATION TABLE AND HAUNCH DETAIL ON THIS SHEET.
- (2) ELEVATIONS SHOWN IN THE TABLE ARE BOTTOM OF SLAB ELEVATIONS ADJUSTED FOR TOTAL DEAD LOAD DEFLECTION, WITH ALLOWANCE FOR DEFLECTION DUE TO GIRDER WEIGHT.

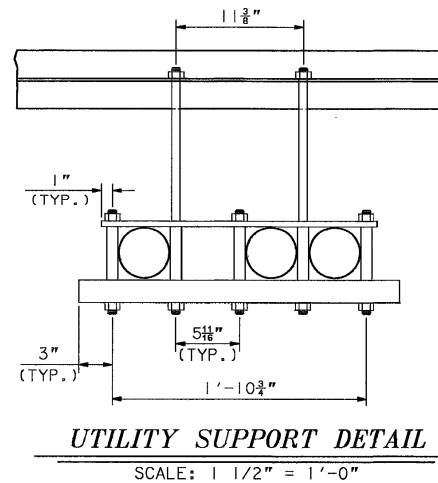
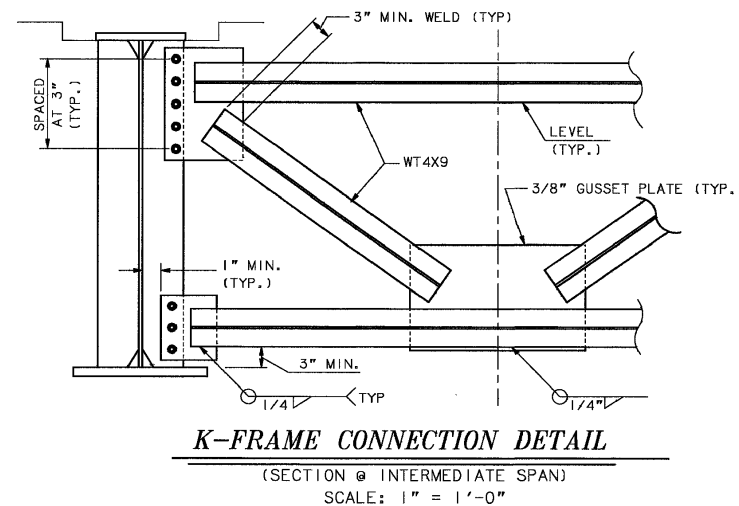
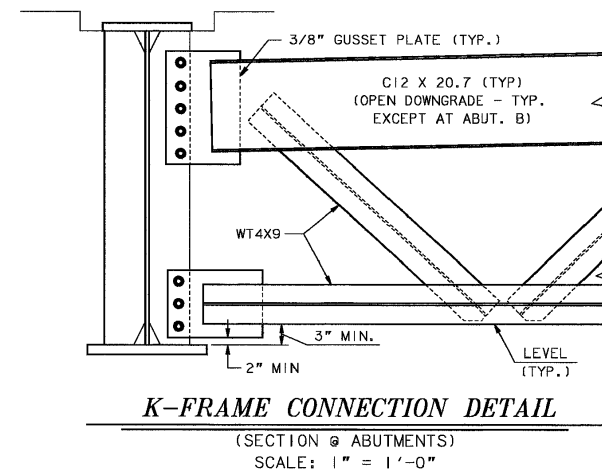
NOTE:
SEE BR. SH. 13 OF 20 FOR SUPERSTRUCTURE NOTES AND QUANTITIES.

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN													
TOWN		HARTS LOCATION		BRIDGE NO.		235/059		STATE PROJECT		P-4366			
LOCATION				U.S. 302 OVER SAWYER RIVER									
DECK SECTION & DETAILS												BRIDGE SHEET	
BY		DATE		BY		DATE		REVISIONS AFTER PROPOSAL		DATE		12 OF 20	
DESIGNED		JCA 5/90		CHECKED		ABP 6/90						FILE NUMBER	
DRAWN		JCA 5/90		CHECKED		ABP 6/90						2-6-2-3	
TRACED				CHECKED				FEDERAL PROJECT NO.		SHEET NO.		TOTAL SHEETS	
QUANTITIES		JCA 7/90		CHECKED		ABP 8/90		BRF-032-1 (20)		24		45	

WINDOW NAME	DRAWING NAME	*PGB FILE NAME	SHEET SCALE
DECKSECT	DECKSECT	STEEL-SUPER.FGE	AS NOTED



DECK TO WING JOINT DETAIL AT BACKWALL
SCALE: 3" = 1'-0"

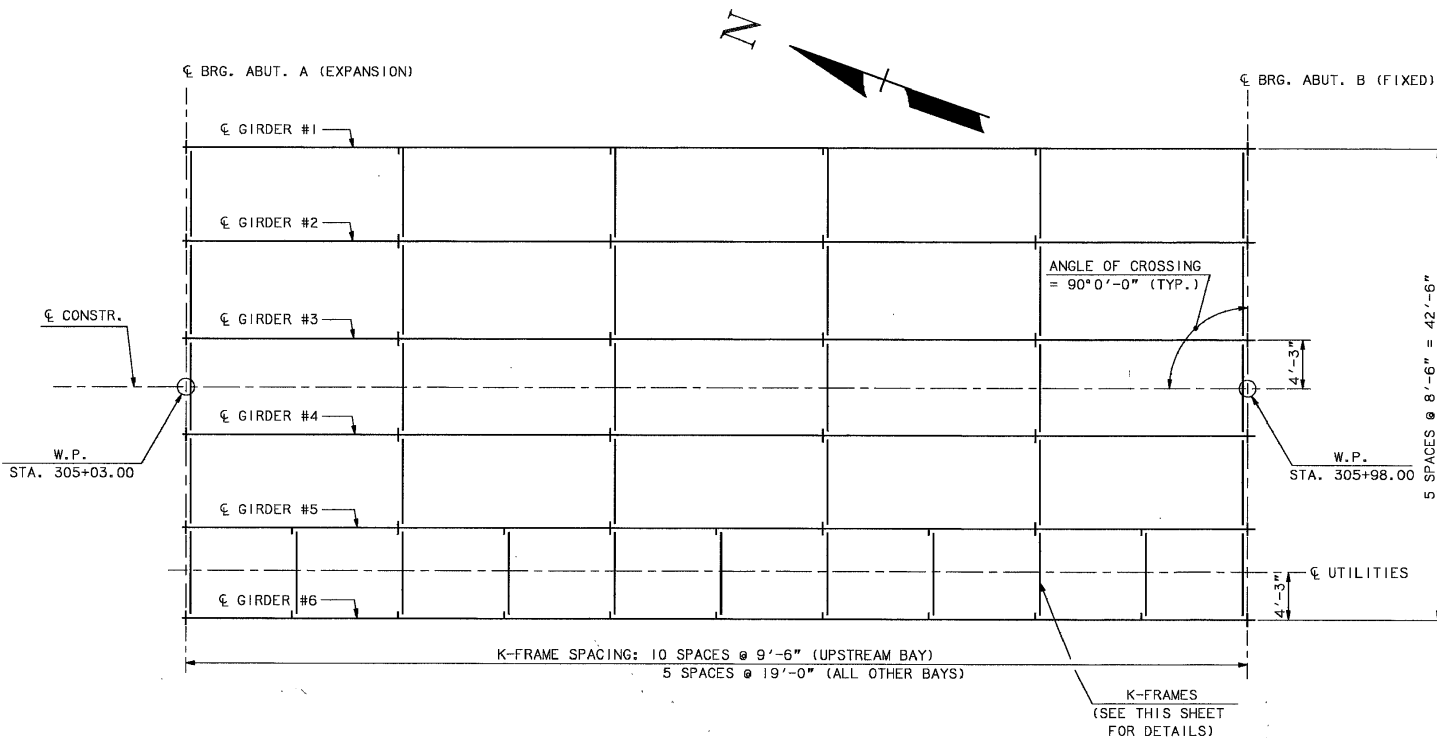


SUPERSTRUCTURE NOTES

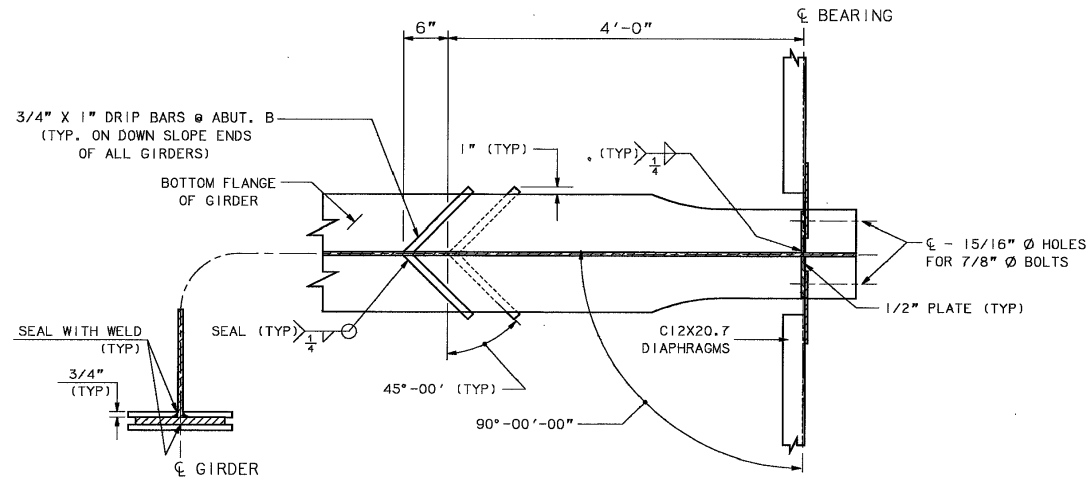
- (1) ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50W (ASTM A709 GRADE 50W), UNPAINTED. PAY UNDER ITEM 550.1.
- (2) ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" Ø HIGH STRENGTH BOLTS (ASTM A325 TYPE 3) IN 15/16" Ø HOLES.
- (3) THE STATE WILL SHOP INSPECT THE FABRICATION OF THE STRUCTURAL STEEL.
- (4) THE NOTCH TOUGHNESS REQUIREMENTS OF NHDOT STANDARD SPECIFICATIONS SHALL APPLY TO THE WEB AND BOTTOM FLANGES OF THE GIRDERS.
- (5) THE STRUCTURAL STEEL FABRICATOR SHALL ARRANGE FOR NON-DESTRUCTIVE TESTING OF WELDS. COST INCLUDED IN ITEM 550.1.
- (6) THE ENDS OF ALL GIRDERS, BEARING STIFFENERS, AND DIAPHRAGMS AT THE E OF ABUTMENTS SHALL BE VERTICAL AFTER FULL DEAD LOAD DEFLECTION.
- (7) ANY SHOP OR FIELD WELDING OF ATTACHMENTS TO GIRDER FLANGES FOR CONSTRUCTION PURPOSES SHALL NOT BE PERMITTED, EXCEPT AS APPROVED BY THE BUREAU OF BRIDGE DESIGN.
- (8) ALL SHEAR CONNECTORS SHALL BE FIELD STUD ARC WELDED TO THE TOP FLANGE.
- (9) GIRDERS SHALL BE CAMBERED FOR FULL DEAD LOAD DEFLECTION. THE CAMBER SHALL BE ACHIEVED BY CUTTING THE WEB PLATE ACCORDING TO THE DIMENSIONS SHOWN ON BRIDGE SHEET 14 OF 20.
- (10) THE GRAVITY AXIS OF K-FRAME MEMBERS SHALL INTERSECT AS NEARLY AS PRACTICABLE AT THE E OF THE GIRDER. K-FRAME MEMBERS SHALL BE SHOP WELDED TO THE GUSSET PLATES.
- (11) THE LOCATION OF WEB AND FLANGE SHOP SPLICES SHALL BE SUBJECT TO THE APPROVAL OF THE BUREAU OF BRIDGE DESIGN. WEB SPLICES SHALL BE AT LEAST 1'-0" FROM FLANGE SPLICES AND/OR TRANSVERSE CONNECTION PLATES.
- (12) THE CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING THE METHOD OF FIELD ERECTION. THESE DRAWINGS SHALL BE APPROVED BEFORE ERECTION STARTS.

SUPERSTRUCTURE QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
403.911	HOT BITUMINOUS BRIDGE PAVEMENT, 1" BASE COURSE WITH POLYESTER FIBER	27	TON
520.7	CONCRETE BRIDGE DECK (EST. 135 CY)	1	U
534.3	WATER REPELLENT (SILANE - SILOXANE)	8	GAL
538.1	BARRIER MEMBRANE	476	SY
541.5	PVC WATERSTOPS, NH TYPE 5	93	LF
544.2	REINFORCING STEEL-EPOXY COATED	41,611	LB
547.	SHEAR CONNECTORS (1,350 TOTAL)	1	U
550.1	STRUCTURAL STEEL (EST. 132,000 LBS.)	1	U
550.2	BRIDGE SHOES	1	U
563.12	BRIDGE RAILING ST	199	LF
609.3	STRAIGHT GRANITE CURB (BRIDGE)	199	LF
562.1	ELASTOMERIC SEALANT	65	CI

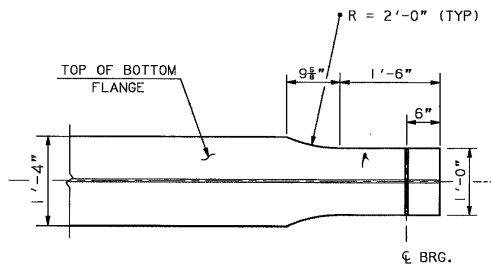


STATE OF NEW HAMPSHIRE										
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN										
TOWN	HARTS LOCATION		BRIDGE NO.		235/059		STATE PROJECT		P-4366	
LOCATION			U.S. 302 OVER SAWYER RIVER							
FRAMING PLAN & DETAILS										
					BRIDGE SHEET			13 OF 20		
BY	DATE	BY	DATE	REVISIONS AFTER PROPOSAL			DATE		FILE NUMBER	
DESIGNED	JCA	3/90	CHECKED	ABP	6/90				2-6-2-	
DRAWN	JCA	5/90	CHECKED	ABP	6/90					
TRACED			CHECKED			FEDERAL PROJECT NO.	SHEET NO.		TOTAL SHEETS	
QUANTITIES	JCA	7/90	CHECKED	ABP	8/90	BRF-032-1 (20)	25		45	



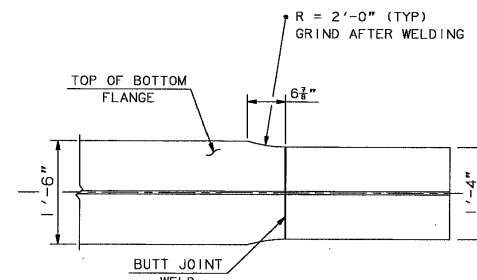
END DIAPHRAGM AND DRIP BAR DETAILS

SCALE: 1" = 1'-0"



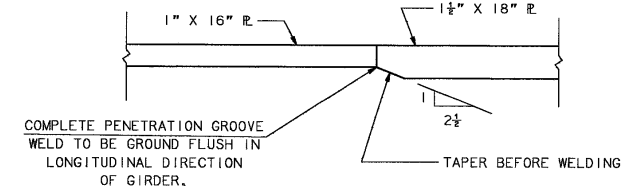
FLANGE WIDTH TRANSITION DETAIL @ ABUTMENTS

SCALE: 3/4" = 1'-0"



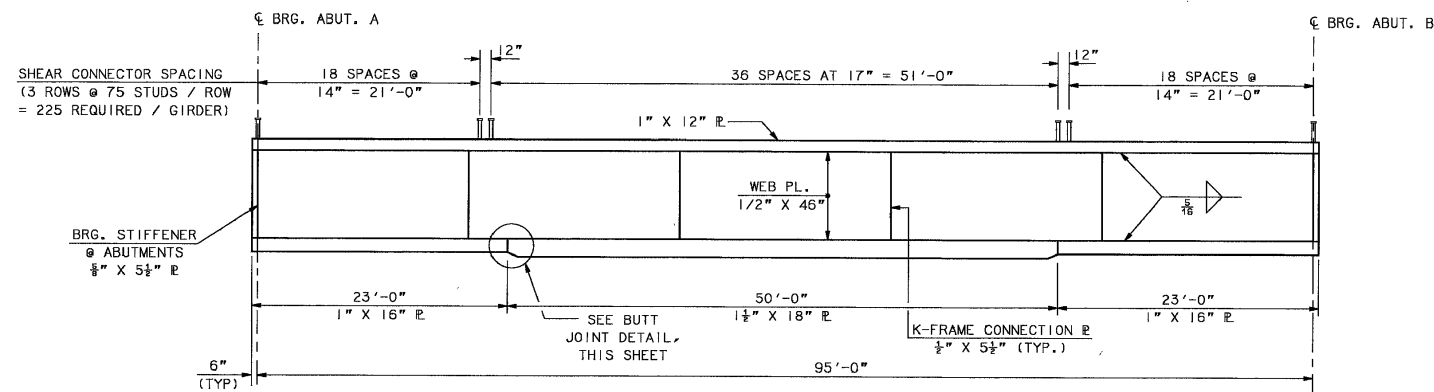
FLANGE WIDTH TRANSITION DETAIL @ BUTT JOINT

SCALE: 3/4" = 1'-0"



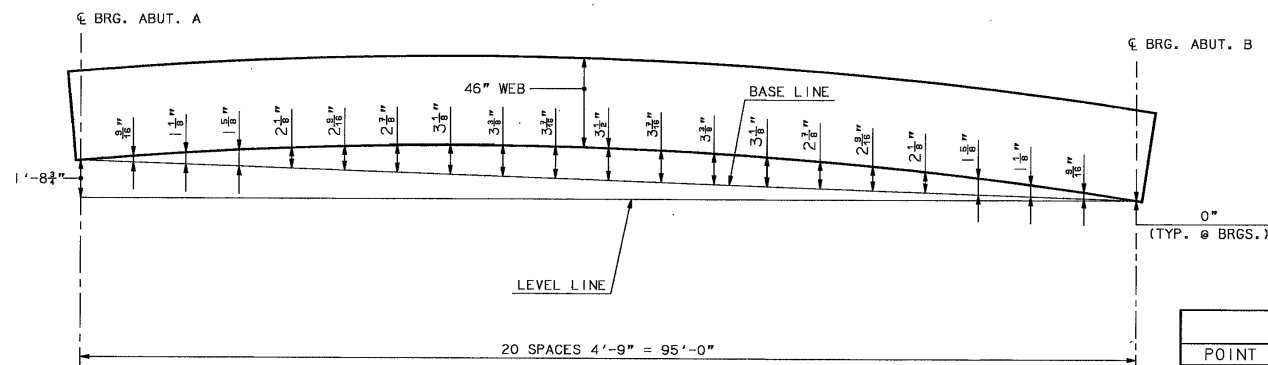
FLANGE THICKNESS TRANSITION DETAIL

SCALE: 3" = 1'-0"



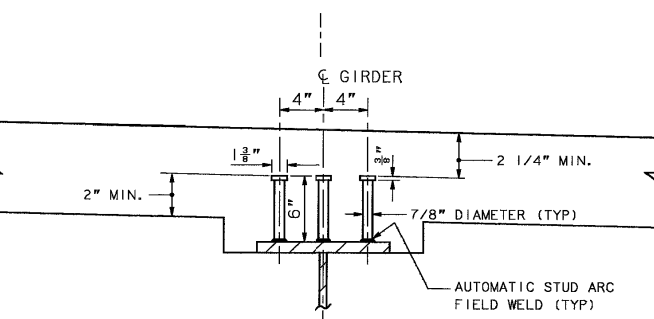
GIRDER ELEVATION

SCALE: NONE



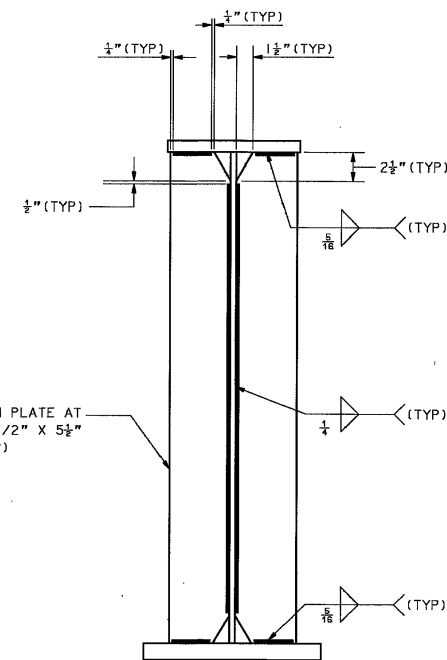
GIRDER WEB LAYOUT

SCALE: NONE



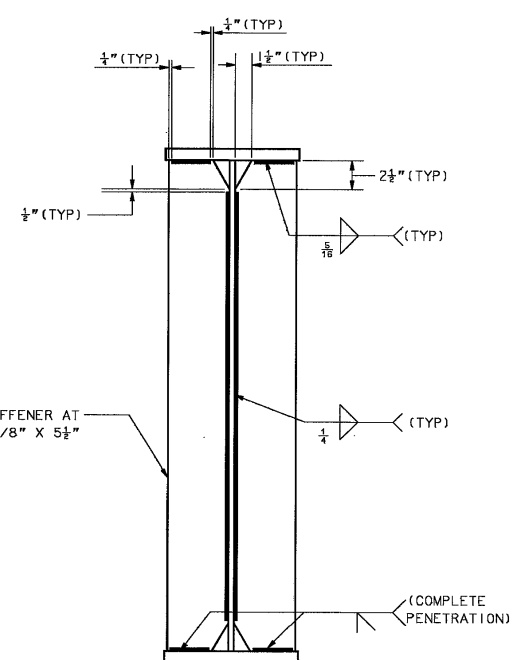
SHEAR CONNECTOR DETAIL

SCALE: 1 1/2" = 1'-0"



CONNECTION PLATE DETAIL

SCALE: 1 1/2" = 1'-0"



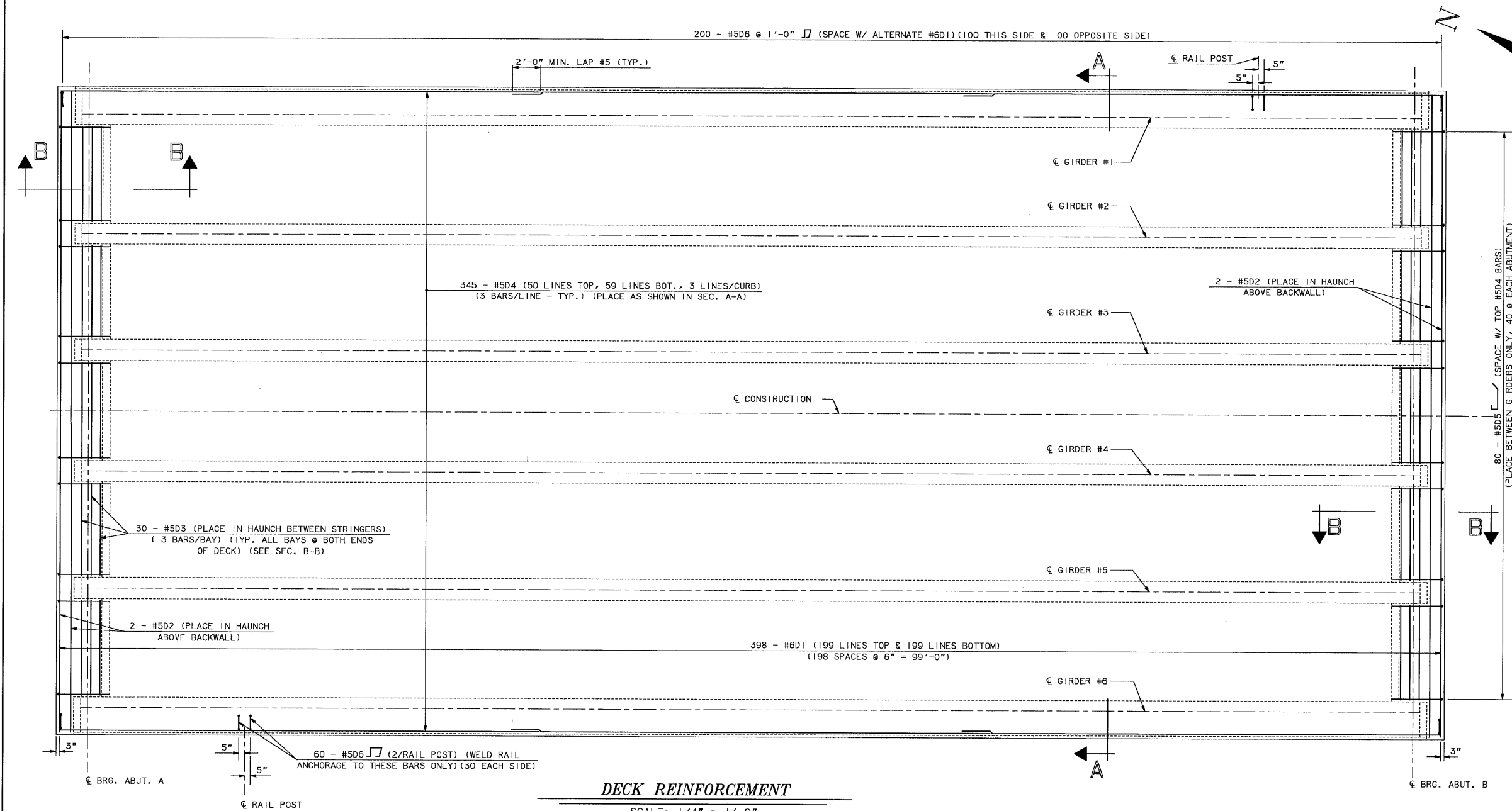
BEARING STIFFENER DETAIL

SCALE: 1 1/2" = 1'-0"

DEAD LOAD DEFLECTION BREAKDOWN					
POINT ON BEAM	¢ BRG ABUTMENT A	.25L	.5L	.75L	¢ BRG ABUTMENT B
GIRDER DL	0"	3/8"	3/8"	3/8"	0"
CONCRETE SLAB DL	0"	1 3/8"	2 3/8"	1 3/8"	0"
SUPERIMPOSED DL	0"	5/8"	3/4"	5/8"	0"
TOTAL DEFLECTION	0"	2 3/8"	3 1/2"	2 3/8"	0"

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN					
TOWN	HARTS LOCATION	BRIDGE NO.	235/059	STATE PROJECT	P-4366
LOCATION	U.S. 302 OVER SAWYER RIVER				
GIRDER LAYOUT & DETAILS				BRIDGE SHEET	
DESIGNED	JCA	5/90	CHECKED	ABP	6/90
DRAWN	JCA	5/90	CHECKED	ABP	6/90
TRACED			CHECKED		
QUANTITIES	JCA	7/90	CHECKED	ABP	8/90
FEDERAL PROJECT NO.				SHEET NO.	TOTAL SHEETS
BRF-032-1 (20)				26	45
				FILE NUMBER	14 OF 20
				2-6-2-3	

WINDOW NAME	DRAWING NAME	*FCB FILE NAME	SHEET SCALE
GLAYOUT	GLAYOUT	STEEL-SUPER	AS NOTED

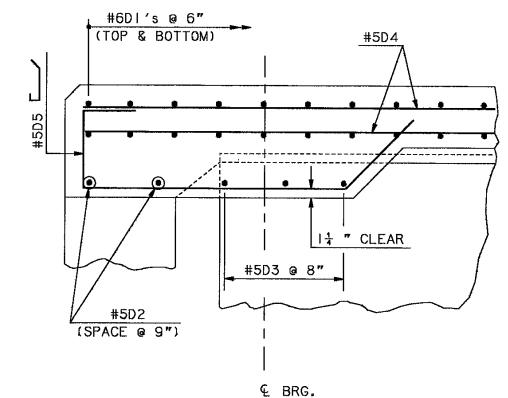


DECK REINFORCEMENT

SCALE: 1/4" = 1'-0"

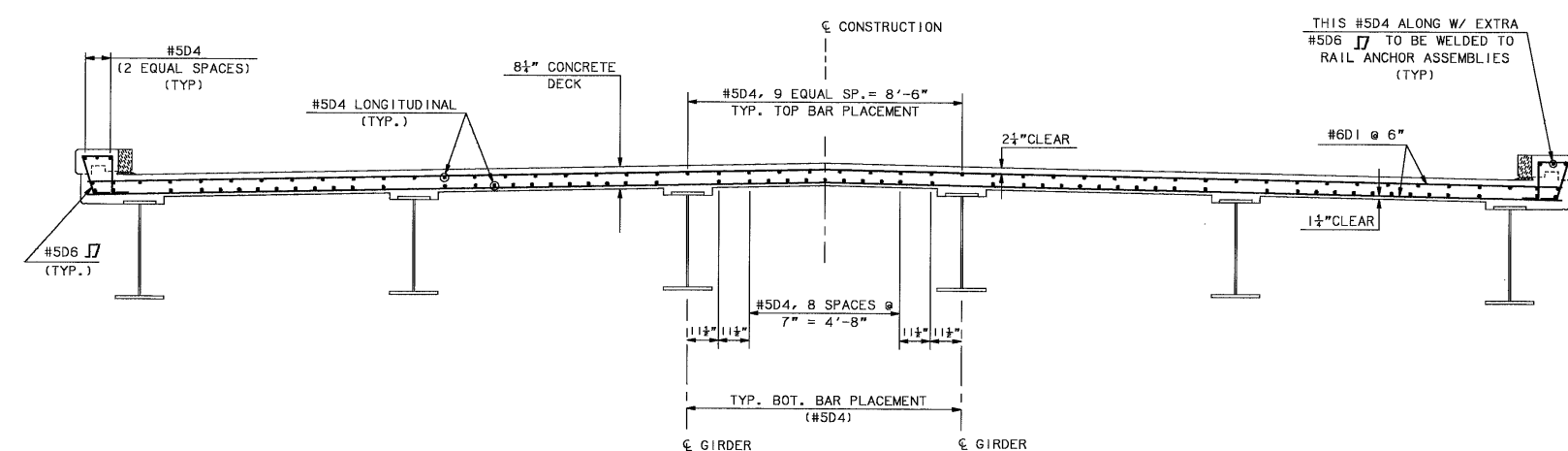
APPROACH SLAB REINFORCEMENT

SCALE: 1/8" = 1'-0"
(NOTE: TYP. BOTH APPROACH SLABS)



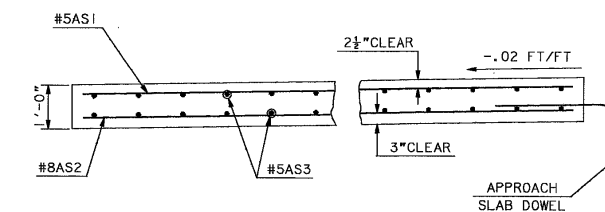
SECTION B-B

SCALE: 1" = 1'-0"



SECTION A-A

SCALE: 3/8" = 1'-0"



SECTION C-C

SCALE: 1/2" = 1'-0"

DECK AND APPROACH SLAB REINFORCEMENT NOTES

- ALL REINFORCING STEEL SHALL BE 2 1/2" CLEAR FROM CONCRETE SURFACES, EXCEPT AS NOTED.
- REINFORCING STEEL - EPOXY COATED, ITEM 544.2, SHALL BE GRADE 60 AND SHALL INCLUDE ALL DECK REINFORCEMENT.
- ANY BARS CUT TO FIT AND EXTRA BARS WELDED WHEN ATTACHING THE RAIL ANCHOR ASSEMBLIES SHALL BE TOUCHED UP WITH AN APPROVED EPOXY COATING MATERIAL. COST SHALL BE INCLUDED IN ITEM 544.2.

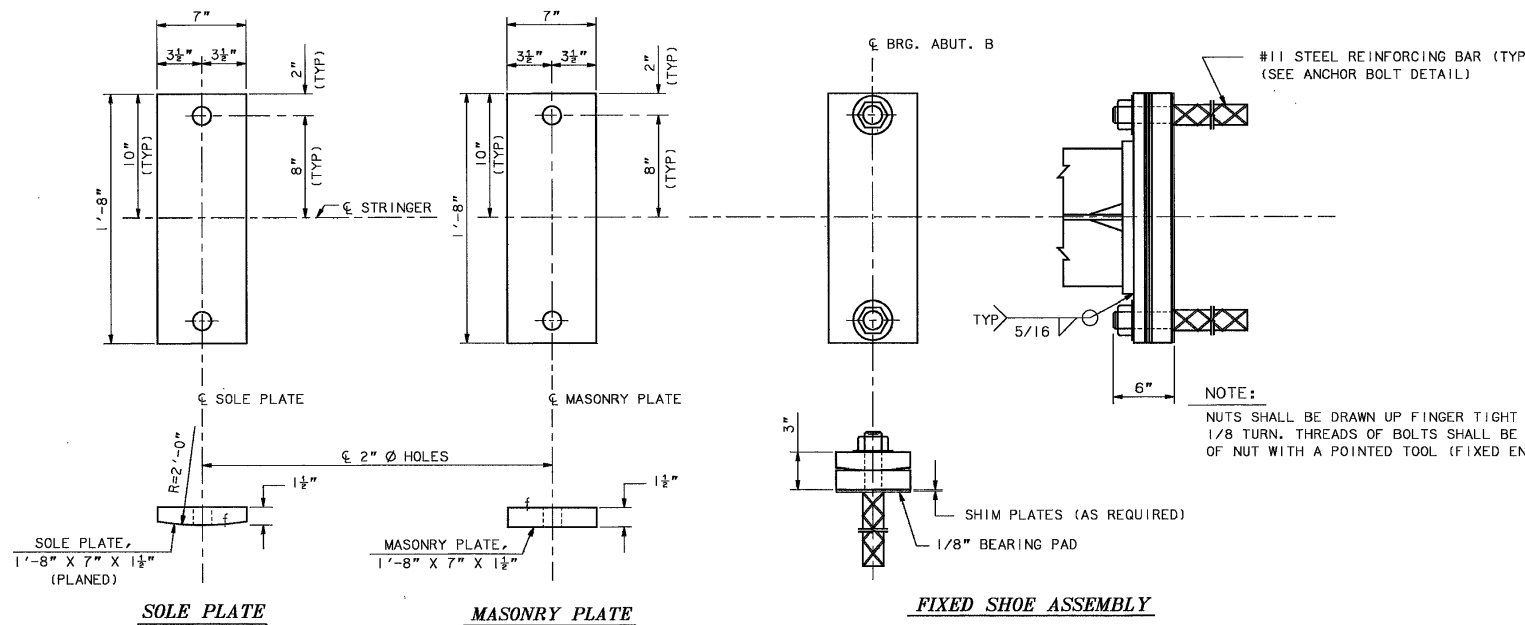
APPROACH SLAB QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
520.13	CONCRETE CLASS A, APPROACH SLABS	65.2	CY
544.	REINFORCING STEEL	13,194	LBS

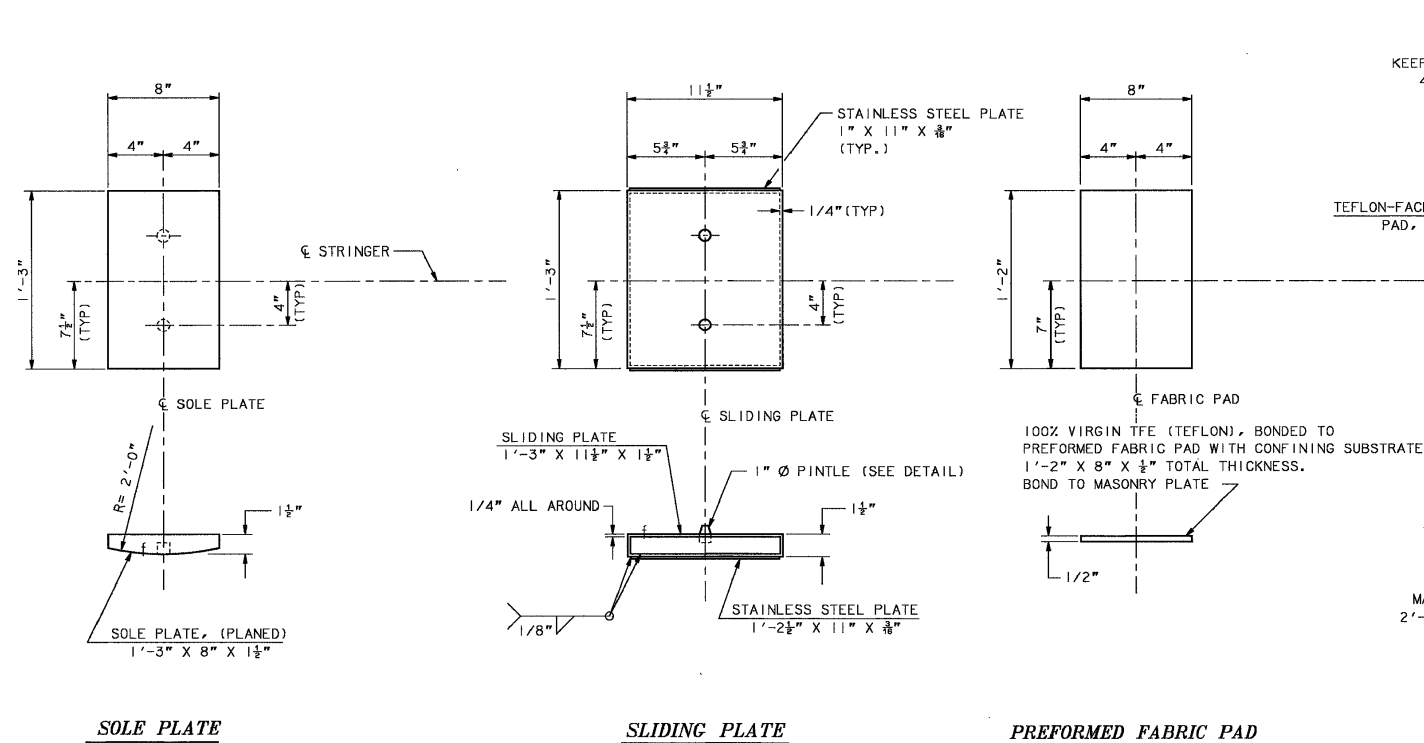
STATE OF NEW HAMPSHIRE													
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN													
TOWN		HARTS LOCATION		BRIDGE NO.		235/059		STATE PROJECT		P-4366			
LOCATION				U.S. 302 OVER SAWYER RIVER									
DECK & APPROACH SLAB REINFORCEMENT										BRIDGE SHEET			
										15 OF 20			
BY		DATE		BY		DATE		REVISIONS AFTER PROPOSAL		DATE			
DESIGNED		JCA		4/90		CHECKED		ABP		6/90			
DRAWN		JCA		4/90		CHECKED		ABP		6/90			
TRACED						CHECKED							
QUANTITIES		JCA		7/90		CHECKED		ABP		8/90			
FEDERAL PROJECT NO.										SHEET NO.		TOTAL SHEETS	
BRF-032-1 (20)										27		45	

WINDOW NAME	DRAWING NAME	*FGB FILE NAME	SHEET SCALE
DECKBARS	DECKBARS	STEEL-SUPER.FGB	AS NOTED

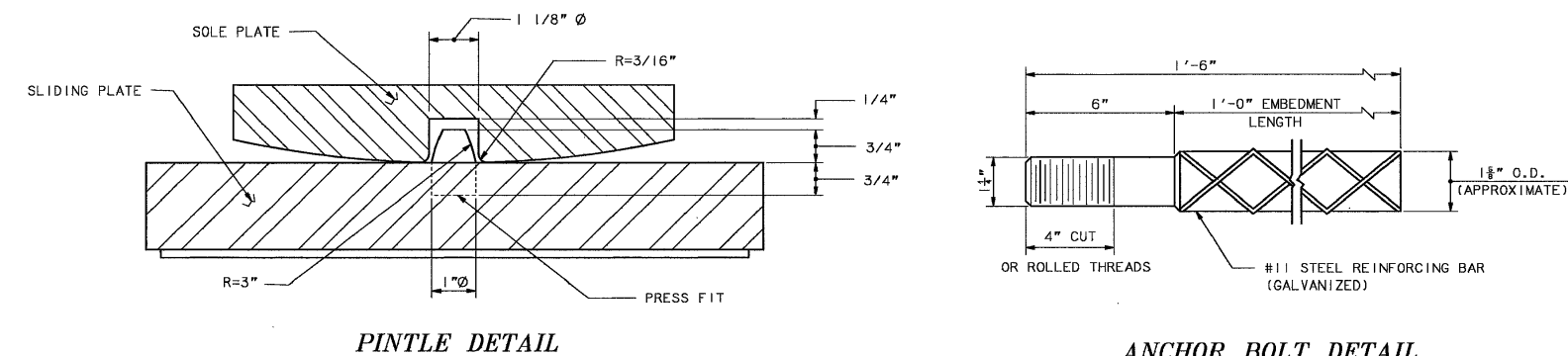
BRIDGE SHOE NOTES



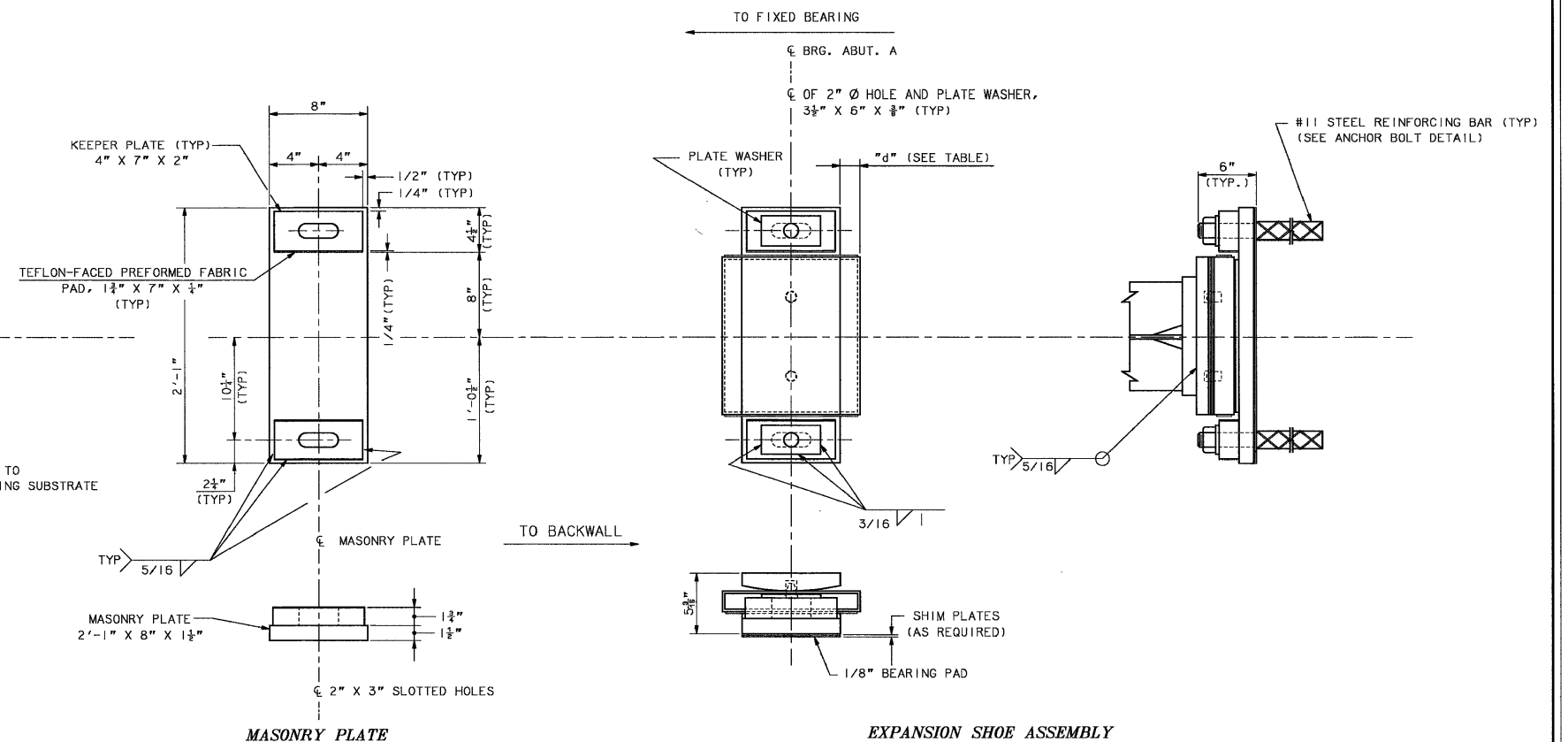
FIXED SHOE DETAILS



EXPANSION SHOE DETAILS



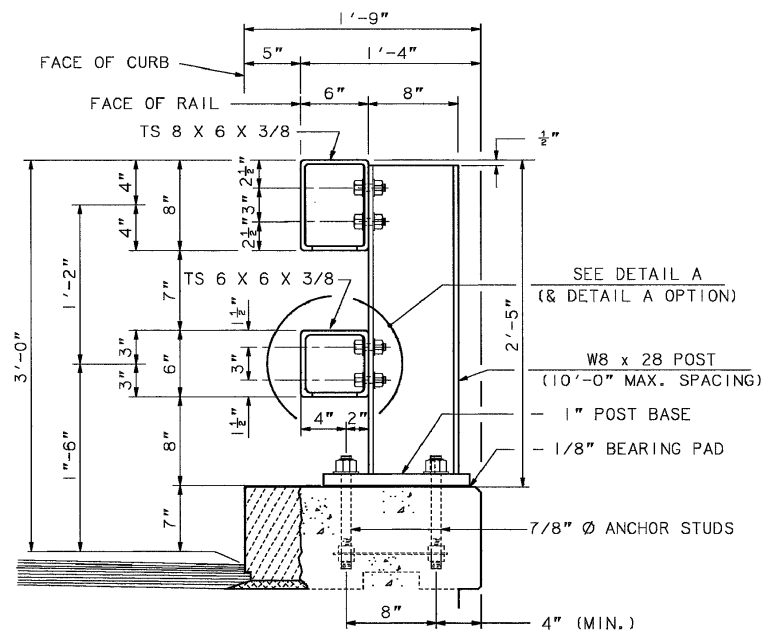
- (1) EXPANSION SHOE AND FIXED SHOE ASSEMBLIES, INCLUDING ANCHOR BOLTS, SHALL BE PAID FOR AS BRIDGE SHOES, ITEM 550.2.
- (2) ALL PLATES SHALL BE FLAT AND TRUE AFTER WELDING.
- (3) ALL STEEL PLATES SHALL CONFORM TO AASHTO M270 GRADE 50W (ASTM A709 GRADE 50W), UNPAINTED, EXCEPT 3/16" STAINLESS STEEL PLATES SHALL BE AISI TYPE 304 (ASTM A240).
- (4) ANCHOR BOLTS SHALL BE FABRICATED IN ACCORDANCE WITH SECTION 550.2.5 OF THE NHDOT STANDARD SPECIFICATIONS, 1983, AS AMENDED.
- (5) SEE NOTE #2 ON BRIDGE SHEET 9 OF 20 FOR THE PROCEDURE TO DETERMINE THE THICKNESS OF SHIM PLATES.
- (6) THE STAINLESS STEEL SURFACE IN CONTACT WITH THE TEFLON SHALL HAVE A 2B FINISH.
- (7) BOND THE PREFORMED FABRIC PADS TO THE TOP OF THE MASONRY PLATES AND SIDES OF THE KEEPER PLATES WITH AN APPROVED ADHESIVE. THE SURFACE PREPARATION OF THE FABRIC PADS AND THE STEEL PLATES SHALL BE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- (8) THE BONDED PREFORMED FABRIC PADS, STAINLESS STEEL PLATES, AND ADHESIVES USED SHALL BE THOSE MANUFACTURED BY AN APPROVED SUPPLIER, WITH PROVEN EXPERIENCE IN THE FIELD.
- (9) BEARING SURFACES MARKED "f", OR SURFACES IN CONTACT TO BE WELDED, SHALL BE FINISHED IN ACCORDANCE WITH AASHTO DIVISION 11, SECTION 10.20.
- (10) THE PREFORMED FABRIC PADS SHALL COMPLY WITH AASHTO DIVISION 11, SECTION 10.3.12, "PREFORMED FABRIC PADS", AND MILITARY SPECIFICATIONS MIL-C-882, AND SHALL MEET THE ENVIRONMENTAL REQUIREMENTS OF MIL-E-5272. THE TEFLON (UNFILLED) SHEET SHALL MEET THE REQUIREMENTS OF AASHTO DIVISION 11, SECTION 27. A CERTIFICATE OF COMPLIANCE SHALL BE FURNISHED FOR THE ABOVE.



TEMPERATURE	"d"
30° F	1 5/8"
45° F	1 3/4"
60° F	1 7/8"
75° F	2"
90° F	2 1/16"

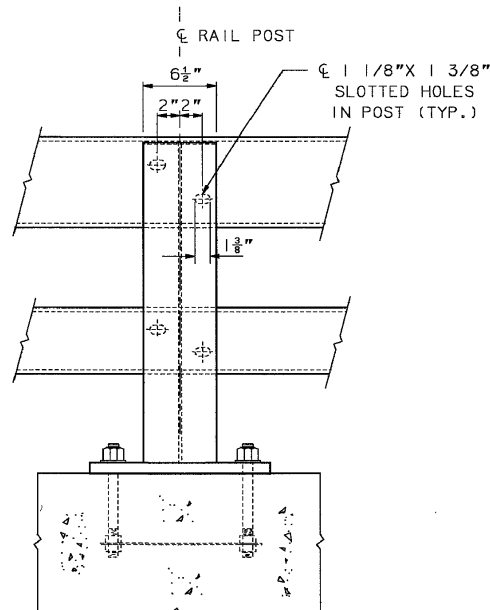
STATE OF NEW HAMPSHIRE											
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN											
TOWN	HARTS LOCATION		BRIDGE NO.		235/059		STATE PROJECT		P-4366		
LOCATION										U.S. 302 OVER SAWYER RIVER	
BRIDGE SHOES								BRIDGE SHEET			
	BY	DATE		BY	DATE	REVISIONS AFTER PROPOSAL		DATE	16 OF 20		
DESIGNED	NBDOT		CHECKED	ABP	6/90				FILE NUMBER		
DRAWN	CMC	9/87	CHECKED	MWR	1/90				2-6-2-3		
TRACED	JCA	4/90	CHECKED	ABP	6/90	FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS		
QUANTITIES	JCA	7/90	CHECKED	ABP	8/90	BRF-032-1 (20)		28	45		

WINDOW NAME	DRAWING NAME	*FGB FILE NAME	SHEET SCALE
STL SHOES	STL SHOES	BR-STANDARDS	NOT TO SCALE

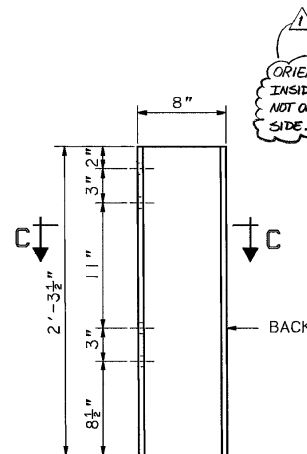


SECTION VIEW

POST ASSEMBLY
SCALE: 1 1/2" = 1'-0"

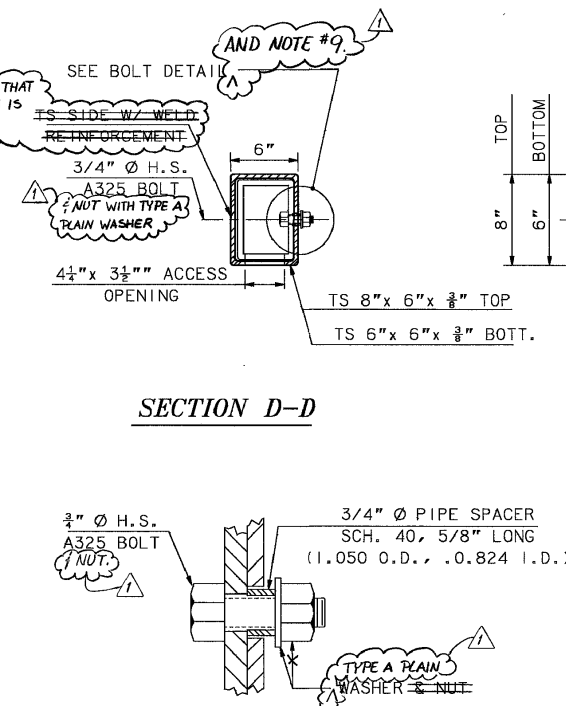


BACK ELEVATION VIEW

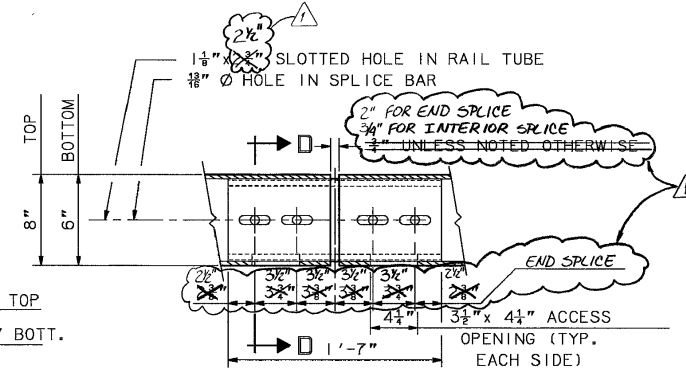


SIDE VIEW

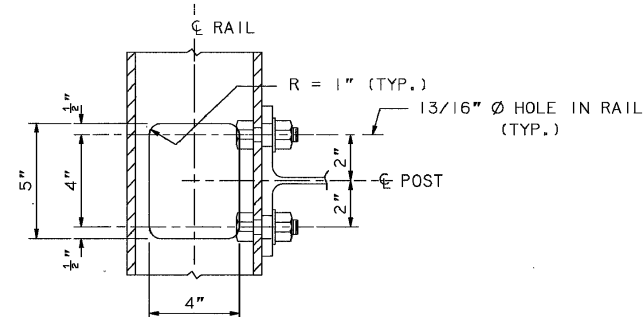
VIEW C-C



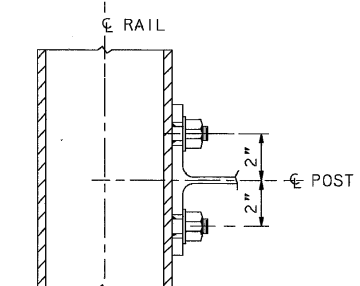
SECTION D-D



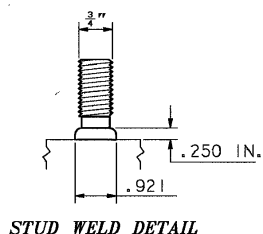
TYPICAL SPLICE



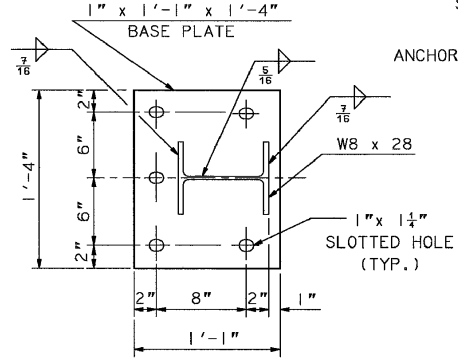
SECTION A-A
SCALE: 3\"/>



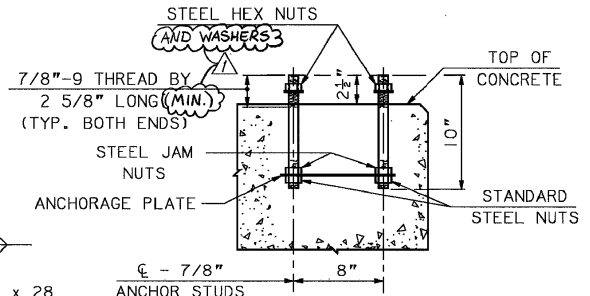
SECTION B-B
SCALE: 3\"/>



STUD WELD DETAIL

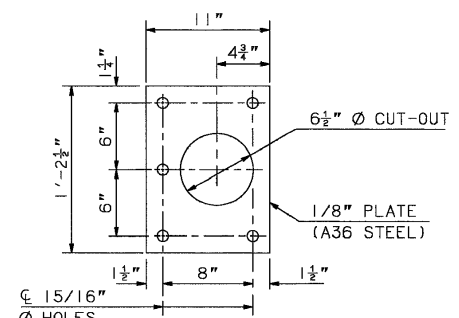


POST BASE
SCALE: 1 1/2" = 1'-0"



RAIL SPLICE DETAILS
SCALE: 1 1/2" = 1'-0"

POST ANCHOR ASSEMBLY
SCALE: 1 1/2" = 1'-0"



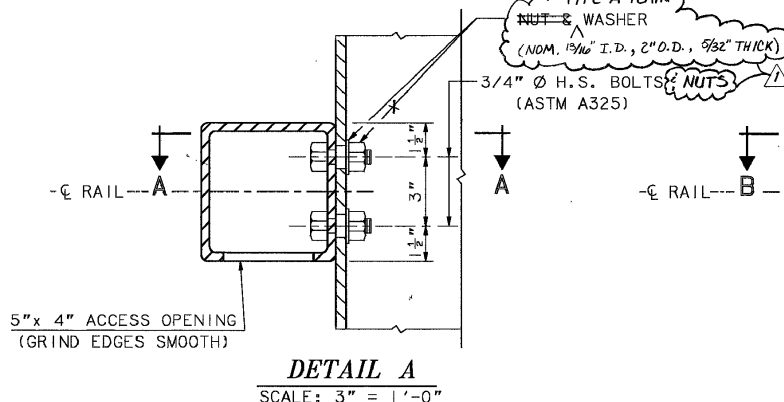
ANCHORAGE PLATE
SCALE: 1 1/2" = 1'-0"

SPLICE BAR SECTION

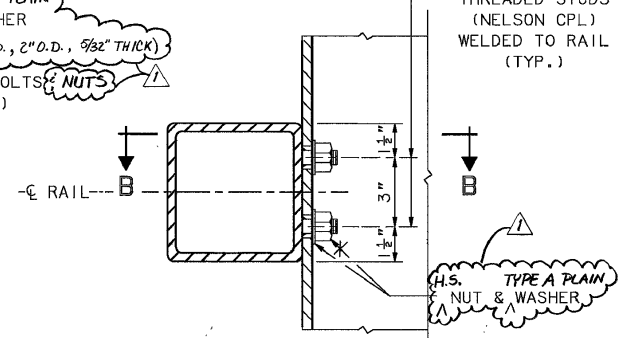
9. AT THE INTERIOR SPLICE, THE PIPE SPACER SHALL BE USED ON ONLY ONE SIDE OF THE SPLICE TO ALLOW MOVEMENT ON THAT SIDE. THE TOP AND BOTTOM RAIL SHALL RECEIVE THE SAME TREATMENT. AT END SPLICES, PIPE SPACERS SHALL BE USED ON BOTH SIDES OF THE SPLICE TO ALLOW MOVEMENT ON EACH SIDE.
10. NO PUNCHING, DRILLING, CUTTING OR WELDING SHALL BE PERMITTED AFTER GALVANIZING. NO MILL OR SHOP TRANSVERSE WELDS WILL BE PERMITTED ON THE RAIL SECTIONS WITHIN A CONTINUOUS LENGTH. RAIL ELEMENTS TO BE USED IN CURVES HAVING RADIUS OF 715 FEET OR LESS SHALL BE SHOP FORMED TO THE REQUIRED CURVATURE.
11. DAMAGED AREAS OF GALVANIZING SHALL BE THOROUGHLY CLEANED, PRETREATED, AND PAINTED WITH TWO COATS OF ZINC-RICH PRIMER ACCORDING TO THE STANDARD SPECIFICATIONS.

RAIL NOTES:

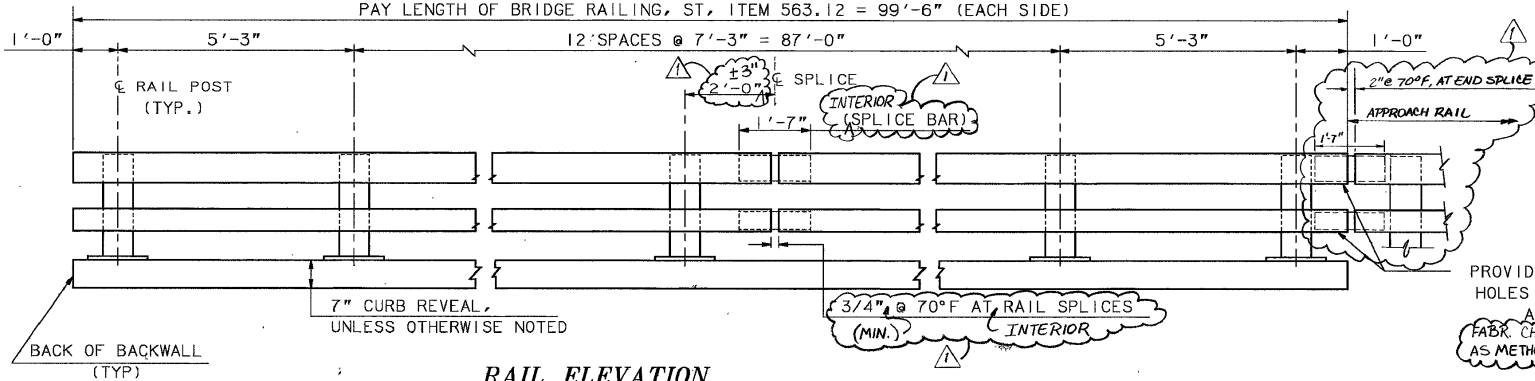
1. BRIDGE RAIL POSTS SHALL BE SET NORMAL (90 DEGREES) TO THE PROFILE GRADE. FOR 5% GRADES OR LESS, FOR GRADES OVER 5% THE POSTS SHALL BE PLUMB. WHEN PROTECTIVE SCREENING IS USED, RAIL POSTS AND SCREEN POSTS SHALL BE SET PLUMB FOR GRADES OVER 3%.
2. THREADS FOR ANCHOR BOLTS MAY BE ROLLED OR CUT. IF CUT THREADS ARE USED BOLT DIAMETER SHALL NOT BE LESS THAN NOMINAL DIAMETER. IF ROLLED THREADS ARE USED, BOLT DIAMETER SHALL NOT BE LESS THAN ROOT DIAMETER OF THREADS.
3. JOINTS IN RAIL LENGTH SHALL BE SPLICED AS DETAILED.
4. ENDS OF TUBE SECTIONS SHALL BE SAWED OR MILLED.
5. CUT ENDS SHALL BE TRUE AND SMOOTH.
6. EACH RAIL SECTION SHALL BE ATTACHED TO A MINIMUM OF THREE (3) POSTS.
7. GRIND ALL EDGES SMOOTH.
8. BOLT HOLES SHALL BE DRILLED OR PUNCHED. FLAME CUTTING MAY BE USED TO FINISH SLOTTED HOLES IF MECHANICALLY GUIDED.
1. HOLLOW STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500, GRADE C, STRUCTURAL STEEL TUBING.
2. RAIL POSTS, BASE PLATES, SPLICE BARS, ETC. SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GR 50 (ASTM A709 GR 50), EXCEPT ANCHOR PLATE CAN BE M270 GR 36.
3. BOLTS, NUTS, WASHERS, & ANCHOR RODS SHALL CONFORM TO AASHTO M164 (ASTM A325), EXCEPT THAT ASTM A307 NUTS MAY BE USED ON THE BOTTOM OF ANCHOR ASSEMBLY. WASHERS SHALL BE COMMERCIAL GRADE TYPE A PLAIN WASHERS AND SHALL MEET THE DIMENSIONAL REQUIREMENTS OF A.S.T.I. B272. AND SHALL BE MADE OF STEEL.
4. ALL POSTS, RAILINGS, SPLICES, & ANCHOR RODS SHALL BE GALVANIZED AFTER FABRICATION.
5. NUTS FOR 7/8\"/>



DETAIL A
SCALE: 3\"/>



DETAIL A OPTION
SCALE: 3\"/>



RAIL ELEVATION
SCALE: 1/2" = 1'-0"

PROVIDE 1/2" Ø DRAIN HOLES IN LOW END OF ALL RAILS IF FABR. CHOOSES DETAIL A OPTION AS METHOD OF RAIL ATTACHMENT.

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
TOWN	HARTS LOCATION		BRIDGE NO.		235/059		STATE PROJECT		P-4366
LOCATION			U.S. 302 OVER SAWYER RIVER						
2-BAR TUBULAR BRIDGE RAIL (STEEL)								BRIDGE SHEET	
		BY	DATE			BY	DATE	17 OF 20	
DESIGNED	NHDOT	3/90	CHECKED	JSZ	3/90	REVISIONS AFTER PROPOSAL		DATE	FILE NUMBER
DRAWN	GBH	3/90	CHECKED	JSZ	3/90	A. CORRECTIONS & CHANGES		12/90	2-6-2-3
TRACED	JCA	7/90	CHECKED	ABP	8/90	FEDERAL PROJECT NO.		SHEET NO.	TOTAL SHEETS
QUANTITIES	JCA	7/90	CHECKED	ABP	8/90	BRF-032-1 (20)		29	45

MARK	SIZE	LENGTH	NO. PIECES	TYPE OF BEND	A	B	C	D	E	F	G	H	J	K	R	O
FOOTING A					(BRIDGE SHEET 4 OF 20)											
FA1	#7	12'-0"	50	-												
FA2	#6	12'-0"	187	-												
FA3	#5	25'-10"	52	-												
FA4	#5	3'-8"	66	-												
FA5	#6	5'-9"	50	N3		1'-0"	1'-2"	3'-7"						0"	9"	
FA6	#5	10'-5"	48	N3		1'-0"	1'-2"	8'-3"						0"	9"	
FA7	#5	10'-7"	52	-												
FA8	#7	7'-3"	10	N3		1'-0"	1'-2"	5'-1"						5 1/8"	9"	
FA9	#7	10'-2"	12	N3		1'-0"	1'-2"	8'-0"						8"	9"	
SECTION SUMMARY-TOTAL WEIGHT (LBS.)														SECTION TOTAL		
ITEM NO.	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18					
544	0	0	2749.0	3802.3	1623.9	0	0	0	0	0	0	8175.2				
544.2 EPOXY COATED	0	0	0	0	0	0	0	0	0	0	0	0				
544.21,EPOXY COATED CONECTR	0	0	0	0	0	0	0	0	0	0	0	0				

MARK	SIZE	LENGTH	NO. OF PIECES	TYPE OF BEND	A	B	C	D	E	F	G	H	J	K	R	O
FOOTING B (BRIDGE SHEET 8 OF 20)																
FB1	#5	11'-0"	72	-												
FB2	#6	11'-0"	121	-												
FB3	#5	25'-10"	48	-												
FB4	#5	3'-8"	66	-												
FB5	#7	8'-6"	50	N3		1'-0"	1'-2"	6'-4"						0"	9"	
FB6	#5	10'-7"	48	-												
FB7	#6	6'-2"	10	N3		1'-0"	1'-2"	4'-0"						4"	9"	
FB8	#7	9'-8"	12	N3		1'-0"	1'-2"	7'-6"						7 1/2"	9"	
SECTION SUMMARY-TOTAL WEIGHT (LBS.)														SECTION TOTAL		
ITEM NO.		#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18				
544		0	0	2901.6	2091.8	1105.8	0	0	0	0	0	0	6099.2			
544.2 EPOXY COATED		0	0	0	0	0	0	0	0	0	0	0	0			
544.21,EPOXY COATED CONECTR		0	0	0	0	0	0	0	0	0	0	0	0			

MARK	SIZE	LENGTH	NO. OF PIECES	TYPE OF BEND	A	B	C	D	E	F	G	H	J	K	R	O
DECK (BRIDGE SHEET 15 OF 20)																
D1	#6	45'-8"	398	-												
D2	#5	45'-8"	4	-												
D3	#5	6'-7"	30	-												
D4	#5	34'-4"	345	-												
D5	#5	5'-2"	80	N2		6"	11"	2'-9"	1'-0"			8 1/2"			8 1/2"	
D6	#5	4'-2"	260	N1		7"	1'-1"	10"	1'-2"	6"		1'-1"			4"	
SECTION SUMMARY-TOTAL WEIGHT (LBS.)														SECTION TOTAL		
ITEM NO.		#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18				
544		0	0	0	0	0	0	0	0	0	0	0	0			
544.2 EPOXY COATED		0	0	14311.9	27299.4	0	0	0	0	0	0	0	41611.3			
544.21.EPOXY COATED CONECTR		0	0	0	0	0	0	0	0	0	0	0	0			

ABUTMENT A				(BRIDGE SHEET 6 OF 20)																
A1	#5	12'-2"	44	-																
A2	#5	7'-7"	44	N2		0"	1'-3"	2'-10"	3'-6"			2'-5 3/4"		2'-5 3/4"						
A3	#6	4'-6"	44	N3		1'-0"	6 1/4"	2'-11 3/4"						0"	4"					
A4	#5	12'-9"	50	17		6'-0"	9"	6'-0"												
A5	#5	5'-3"	44	17		1'-0"	3'-3"	1'-0"												
A6	#5	4'-9"	2	17		1'-0"	2'-9"	1'-0"												
A7	#5	4'-8"	32	N8		2'-5"	2'-3"													
A8	#5	23'-0"	28	-																
A9	#5	21'-6"	6	-																
A10	#5	22'-11"	18	-																
A11	#5	22'-7"	36	-																
A12	#5	15'-3"	52	-																
A13	#5	14'-0"	2	-																
A14	#5	16'-0"	4	-																
A15	#5	21'-7"	2	-																
A16	#5	2'-9"	4	-																
A17	#5	1'-3"	4	-																
SECTION SUMMARY-TOTAL WEIGHT (LBS.)														SECTION TOTAL						
ITEM NO.	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18									
544	0	0	5047.2	297.4	0	0	0	0	0	0	0	5344.6								
544.2 EPOXY COATED	0	0	0	0	0	0	0	0	0	0	0	0								
544.21,EPOXY COATED CONECTR	0	0	0	0	0	0	0	0	0	0	0	0								

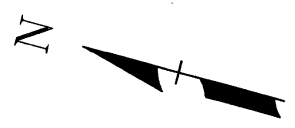
ABUTMENT B				(BRIDGE SHEET 10 OF 20)												
B1	#5	8'-6"	44	-												
B2	#5	6'-5"	44	N2		0"	1'-3"	1'-8"	3'-6"			2'-5 3/4"		2'-5 3/4"		
B3	#6	4'-6"	44	N3		1'-0"	6 1/4"	2'-11 3/4"						0"	4"	
B4	#5	11'-3"	50	17		5'-3"	9"	5'-3"								
B5	#5	5'-3"	44	17		1'-0"	3'-3"	1'-0"								
B6	#5	4'-9"	2	17		1'-0"	2'-9"	2'-0"								
B7	#5	4'-8"	30	N8		2'-5"	2'-3"									
B8	#5	23'-0"	26	-												
B9	#5	21'-6"	6	-												
B10	#5	22'-11"	18	-												
B11	#5	22'-7"	34	-												
B12	#5	13'-9"	52	-												
B13	#5	10'-9"	2	-												
B14	#5	12'-9"	4	-												
B15	#5	19'-11"	2	-												
B16	#5	2'-9"	4	-												
B17	#5	1'-3"	4	-												
SECTION SUMMARY-TOTAL WEIGHT (LBS.)														SECTION TOTAL		
ITEM NO.	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18					
544	0	0	4537.2	297.4	0	0	0	0	0	0	0	4834.6				
544.2 EPOXY COATED	0	0	0	0	0	0	0	0	0	0	0	0				
544.21,EPOXY COATED CONECTR	0	0	0	0	0	0	0	0	0	0	0	0				

APPROACH SLAB				(BRIDGE SHEET 15 OF 20)															
AS1	#5	19'-6"	132	-															
AS2	#8	19'-6"	132	-															
AS3	#5	43'-7"	80	-															
SECTION SUMMARY-TOTAL WEIGHT (LBS.)																	SECTION TOTAL		
ITEM NO.	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18								
544	0	0	6321.3	0	0	6872.6	0	0	0	0	0	0	13193.9						
544.2 EPOXY COATED	0	0	0	0	0	0	0	0	0	0	0	0	0						
544.21,EPOXY COATED CONECTR	0	0	0	0	0	0	0	0	0	0	0	0	0						

MARK	SIZE	LENGTH	NO. OF PIECES	TYPE OF BEND	A	B	C	D	E	F	G	H	J	K	R	O
SHEET SUMMARY-TOTAL WEIGHT (LBS.)																
ITEM NO.	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18	SHEET TOTAL				
544	0	0	21556.3	6488.9	2729.7	6872.6	0	0	0	0	0	37647.5				
544.2 EPOXY COATED	0	0	14311.9	27299.4	0	0	0	0	0	0	0	41611.3				
544.21,EPOXY COATED CONECTR	0	0	0	0	0	0	0	0	0	0	0	0				

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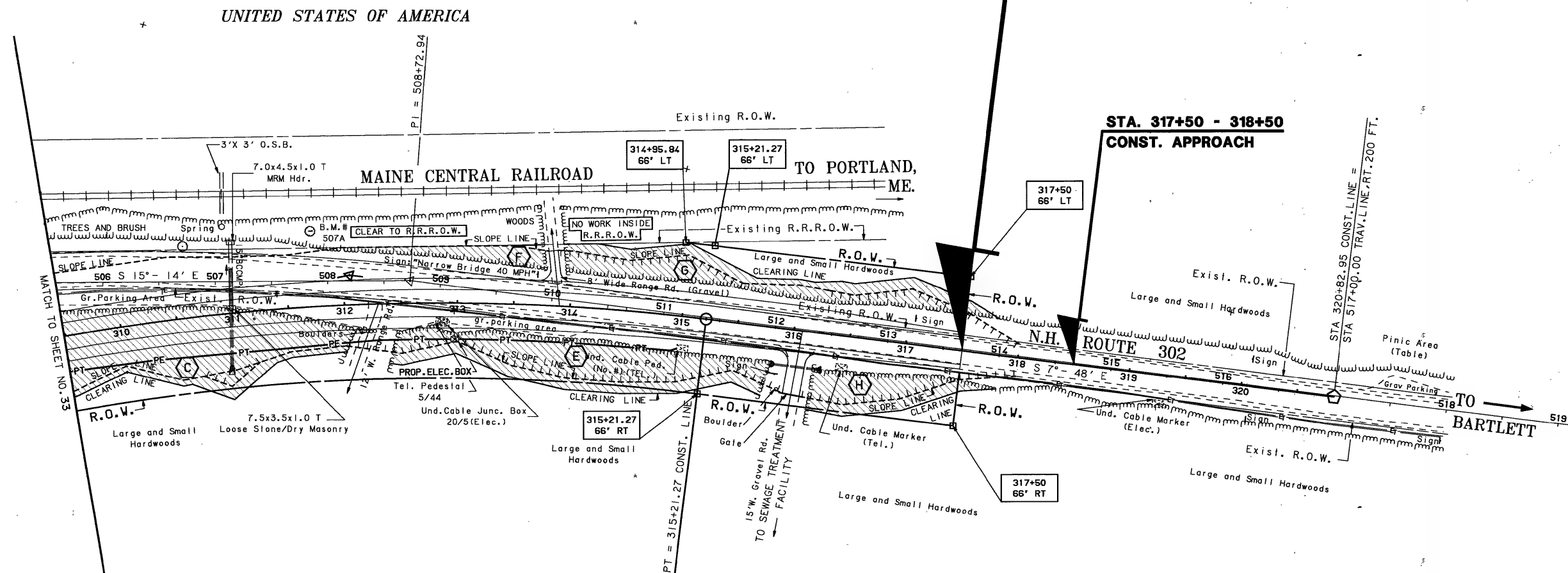
STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN													
TOWN		HARTS LOCATION		BRIDGE NO.		235/059		STATE PROJECT		P-4366			
LOCATION		U.S. 302 OVER SAWYER RIVER											
WINDOW NAME		REINFORCING SCHEDULE (SHEET 2 OF 2)										BRIDGE SHEET	
REBAR2												20 OF 20	
DRAWING NAME		BY		DATE		BY		DATE		REVISIONS AFTER PROPOSAL		DATE	
SCHED2													
*FGB FILE NAME		DESIGNED		NHDOT		CHECKED		ABP		8/90			
BAR-SCHEDULE, FGB		DRAWN		KJT		CHECKED		MWR		1/90			
SHEET SCALE		TRACED		JCA		CHECKED		ABP		8/90		FEDERAL PROJECT NO.	
NONE		QUANTITIES		JCA		CHECKED		ABP		8/90		BRF-032-1 (20)	
												SHEET NO.	
												32	
												TOTAL SHEETS	
												45	



NOTEBOOKS		
BOOK	9613	PAGE 27, 37, 38, 59-62
BOOK	9185	PAGE 25-29, 36-38
BOOK	10184	PAGE 38-40

GENERAL PLANS			
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
BRF-032-1(20)	P-4366	33	45

STA 317+50
END BRF-032-1(20)



UNITED STATES OF AMERICA

BENCH MARKS

B.M.#507A - STA.311+73,LT.68',RTE.302. HORIZ.
R.R. SPIKE IN A 6" BEECH TREE.
ELEV.= 866.75 BOOK 11479, PG.56.

CONST. CURVE NO. 2

$PI = 312 + 08.35$
 $\Delta = 18^{\circ} - 57' - 00''$ RT.
 $D = 3^{\circ} - 00' - 00''$
 $T = 318.74'$
 $R = 1909.86'$
 $L = 631.67'$
 $E = 26.42'$

EXISTING DETAIL		DATE	NOTEBOOKS					REVISIONS AFTER PROPOSAL				
PROPOSED DESIGN	STEVE LEBARON	DATE 8-13-90	BOOK	9673	PAGE 27, 28, 29-32							DESCRIPTION
SHEET CHECKED		DATE	BOOK	9185	PAGE 35-36, 38-39							
AS BUILT DETAILS		DATE	BOOK	10184	PAGE 38-40							

GENERAL PLANS			
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
RRF-032-1(20)	P-4366	34	45

EXISTING DETAIL		DATE	
PROPOSED DESIGN		DATE 4-27-90	
SHEET CHECKED			
AS BUILT DETAILS		DATE	

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

NOTEBOOKS	
BOOK	PAGE
BOOK	PAGE
BOOK	PAGE

(D) STA. 306+31 - 307+93.5, RT.
 CONST. ~~87-5~~⁸⁷⁻² BGR STANDARD SECTION (GR-140)
 CONST. BGR TERMINAL UNIT TYPE 'F-1' (GR-1465)

STA. 304+30 - 306+85, LT., OLD RTE. 302
 ✓ REMOVE 315' EXIST. BGR (SUBSID)
 ✓ REMOVE (4) ANCHORAGES FOR TERMINAL 'F'
 UNITS (IT. 606.821)

$$\frac{PI}{TRAV. LINE} = 503 + 31.23$$

STA. 2+97, PAVED PARKING AREA
CONST. (4) BOULDERS FOR GUARDRAIL

$PI = 102 + 88.70$
 $\Delta = 42^\circ - 4' - 30''$ RT.
 $D = 2^\circ - 30' - 00''$
 $T = 881.50'$
 $R = 2291.90'$
 $L = 1683.10'$
 $E = 163.68'$

P.O.C. 98+05.00 TRAV.LINE =
P.O.T. 300+00.00 CONST. LINE
NOTE: TRAVERSE AND CONST. LINE
STATIONINGS INCREASE IN
OPPOSITE DIRECTIONS.

TO TWIN
MOUNTAIN

N.H. ROUTE

7 STA. 304+⁶⁶~~75~~ LT. & RT. 11
✓ CONST. (2) DI-DB'S LT. & RT.
✓ CONST. ²³~~27~~ LT. & ³⁵~~25~~ RT. x 12"
PIPE FOR SLOPE DRAINAGE
✓ CONST. (2) STEEL END SECTIONS, LT. & RT.
FOR 12" PIPES
✓ CONST. OUTLET DITCH W/ CLASS 'C' STONE,
RT.

2 STA. 301+00, LT. & RT.
 ↳ CONST. (2) CB-A'S, LT. 34' & RT. 35'
 ↳ CONST. ^{55'}~~65'~~ X 15" RCP, 2000 D
 ↳ REMOVE 44' EXIST. 12" PIPE
 ↳ REMOVE (2) CB'S, LT. & RT.

CONST. WINTER PARKING AREA
NOTE: NO ALIGNMENT OR
X-SECTS. AVAILABLE.
PARKING AREA WILL BE
LAID OUT BY THE
ENGINEER.

5 STA. 301+00 - 304+30, LT.
- REMOVE ²⁸⁰~~330~~ x 15" EXIST. PIPE (50' SUBSID.)

* LEGEND *	
SSL	SINGLE SOLID LINE (WHITE)
DSL	DOUBLE SOLID LINE (YELLOW)
DL(SW/B)	DOUBLE LINE (SOLID WITH BROKEN) (YELLOW)

NOTE: PASSING ZONES SHALL BE VERIFIED IN FIELD BY BUREAU OF TRAFFIC PRIOR TO FINAL PAVEMENT MARKING

"AS-BUILT PLANS"

DRAINAGE, GUARDRAIL, CURBING,
PAVEMENT LAYOUT, AND
PAVEMENT MARKING

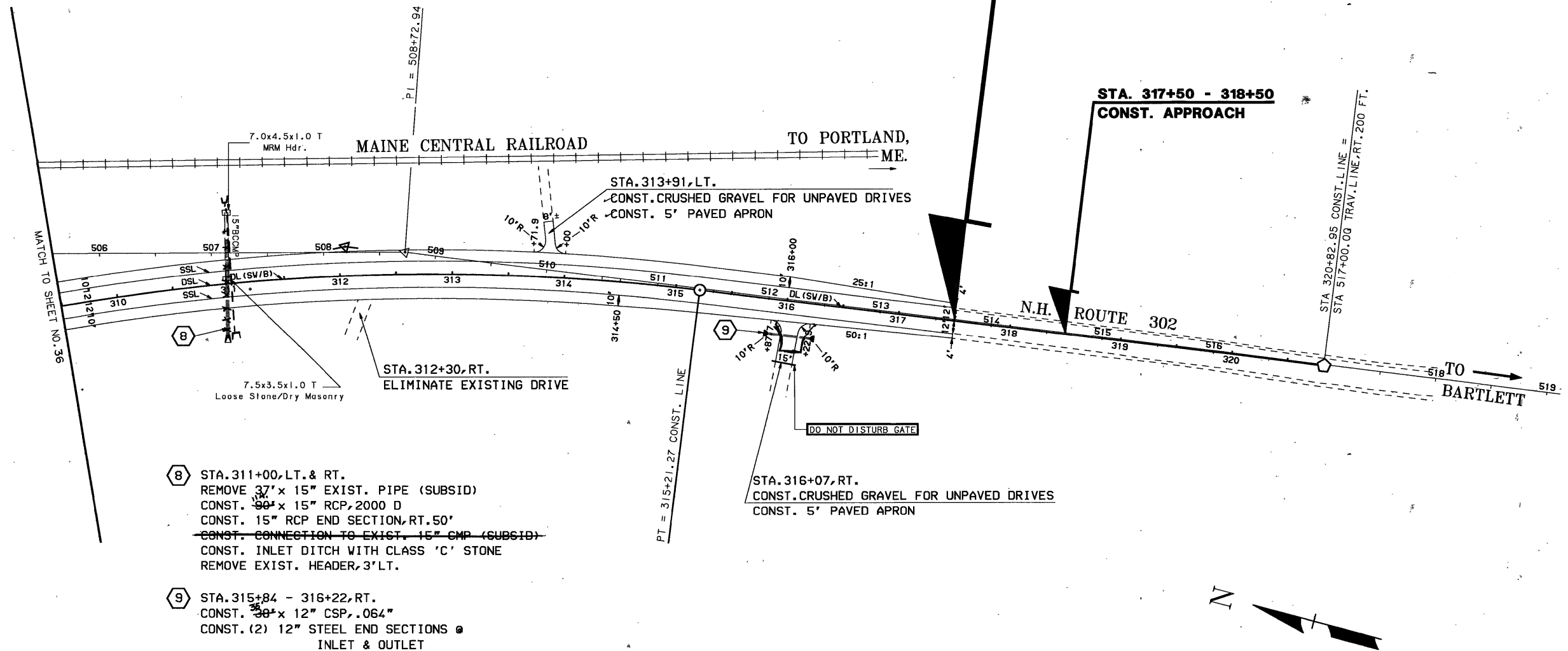
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
BRF-032-1(20)	P-4366	36	45

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NOTEBOOKS		
BOOK	9613	PAGE 27, 37, 38, 59-62
BOOK	9185	PAGE 25-26, 38-39
BOOK	10184	PAGE 39-40

EXISTING DETAIL	DATE
PROPOSED DESIGN	DATE
SHEET CHECKED	DATE
AS BUILT DETAILS	DATE

STA 317+50
END BRF-032-1(20)



※ LEGEND ※

SSL	SINGLE SOLID LINE (WHITE)
DSL	DOUBLE SOLID LINE (YELLOW)
DL (SW/B)	DOUBLE LINE (SOLID WITH BROKEN) (YELLOW)

NOTE: PASSING ZONES SHALL BE VERIFIED IN FIELD BY BUREAU OF TRAFFIC PRIOR TO FINAL PAVEMENT MARKING

CONST. CURVE NO. 2

$PI = 312 + 08.35$
 $\Delta = 18^{\circ} - 57' - 00''$ RT.
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 $R = 1909.86'$
 $L = 631.67'$
 $E = 26.42'$

AS-BUILT PLANS

DRAINAGE, GUARDRAIL, CURBING,
PAVEMENT LAYOUT, AND
PAVEMENT MARKING

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
BRF-032-1(20)	P-4366	37	45

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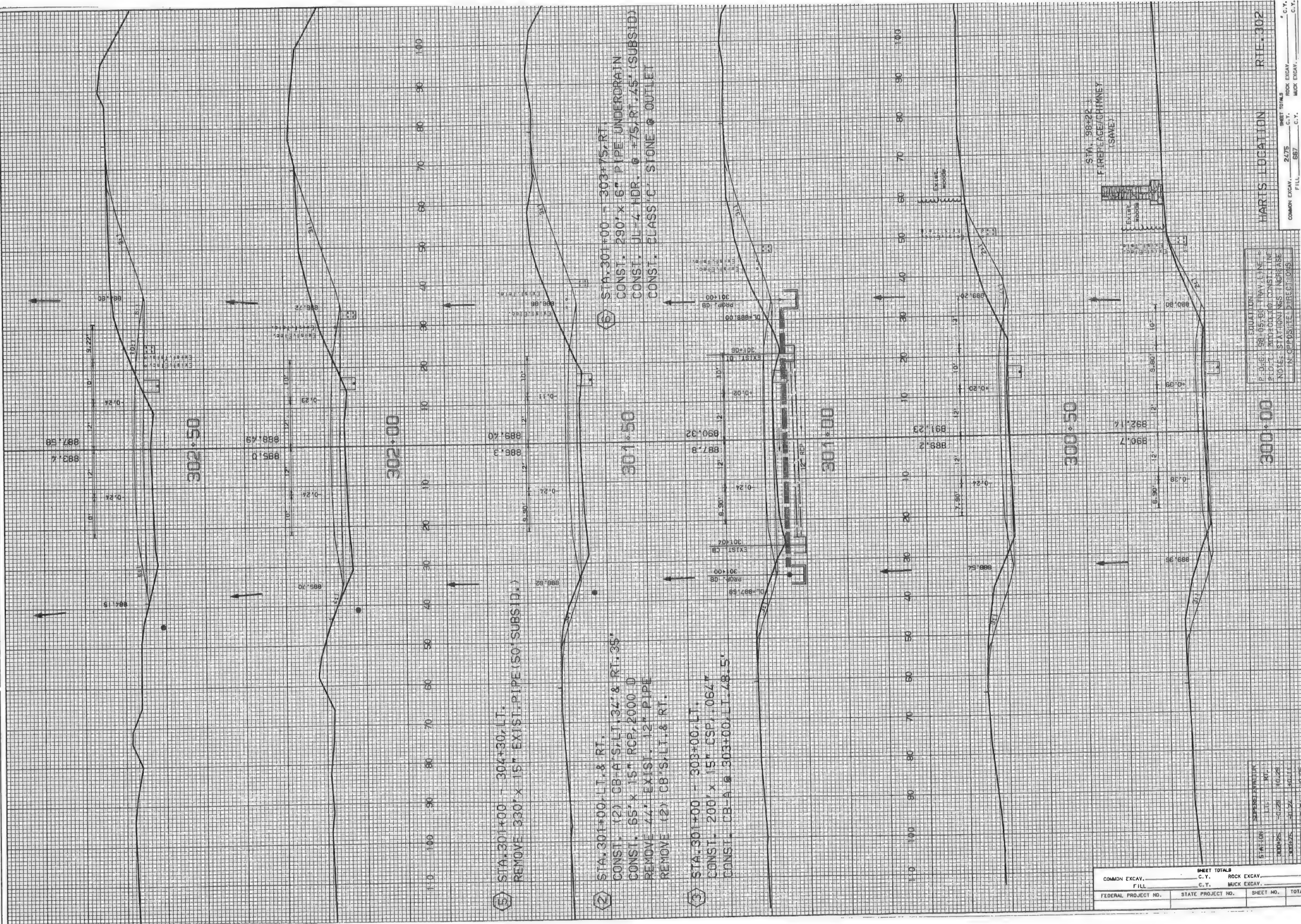
NOTEBOOKS	
BOOK 9613	PAGE 27-37, 58-62
BOOK 9185	PAGE 25-29, 35-38
BOOK 10184	PAGE 28-40

EXISTING DETAIL	DATE
PROPOSED DESIGN	DATE 8-13-90
SHEET CHECKED	DATE
AS BUILT DETAILS	DATE

SECTIONS PLOTTED		STEVE LEBARON		DATE 9-1-90	
TEMPLATE PLOTTED		"		DATE "	
EARTHWORK COMPILED		"		DATE "	
SHEET CHECKED		"		DATE "	
FINALS PLOTTED		"		DATE "	

REVISIONS AFTER PROPOSAL	
NUMBER	DATE
STATION	
DESCRIPTION	

NOTEBOOKS	
BOOK	PAGE
BOOK	PAGE
BOOK	PAGE



SHEET TOTALS	
COMMON EXCAV.	22.75
FILL	667
ROCK EXCAV.	C.Y.
MUCK EXCAV.	C.Y.

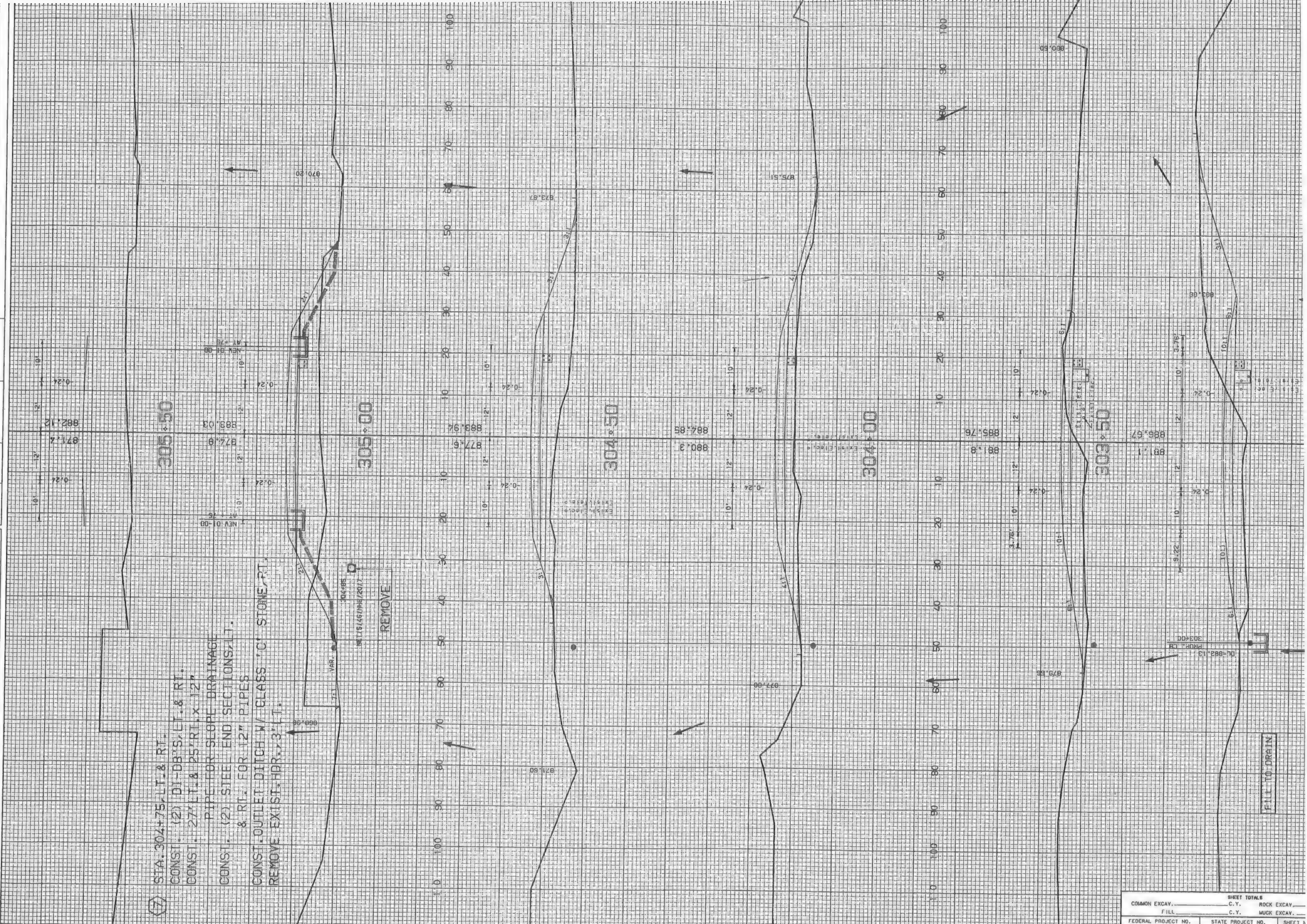
HARTS LOCATION	
RTE. 302	

EQUATION	
P.O.B. 52.05.00 TRAV. LINE	
P.O.B. 52.05.00 CONST. LINE	
NOTES: STATIONING INCREASE	
IN OPPOSITE DIRECTIONS	

STATION	
300+00	
300+25	
300+50	
300+75	
301+00	
301+25	
301+50	
301+75	
302+00	
302+25	
302+50	
303+00	

SECTIONS PLOTTED		STEVE LEBARON		DATE 9-1-90	
TEMPLATE PLOTTED		"		DATE "	
EARTHWORK COMPILED		"		DATE "	
SHEET CHECKED		"		DATE "	
FINALS PLOTTED		"		DATE "	

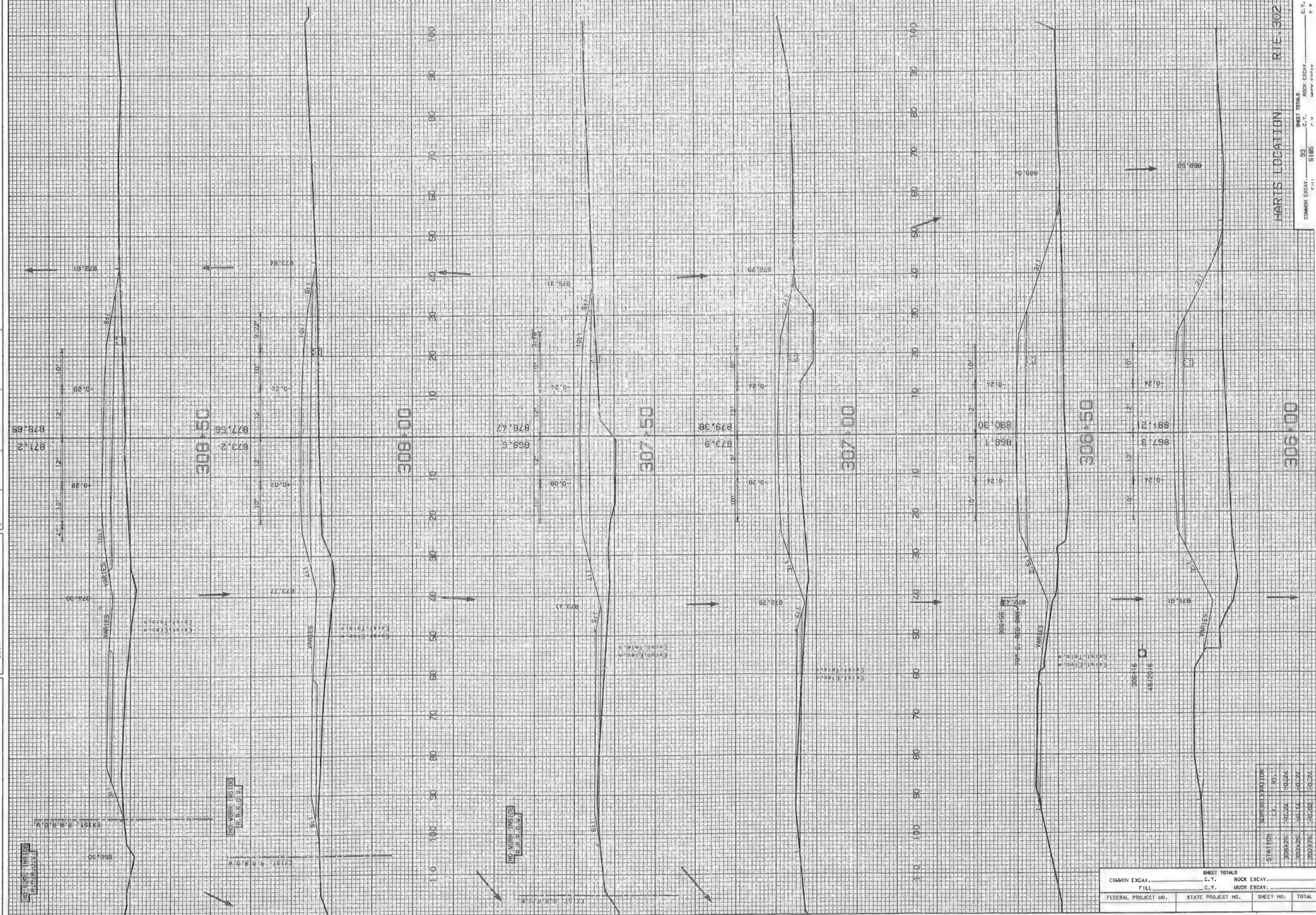
NOTESBOOKS		REVISIONS AFTER PROPOSAL	
BOOK	PAGE	STATION	DESCRIPTION
BOOK	PAGE		
BOOK	PAGE		



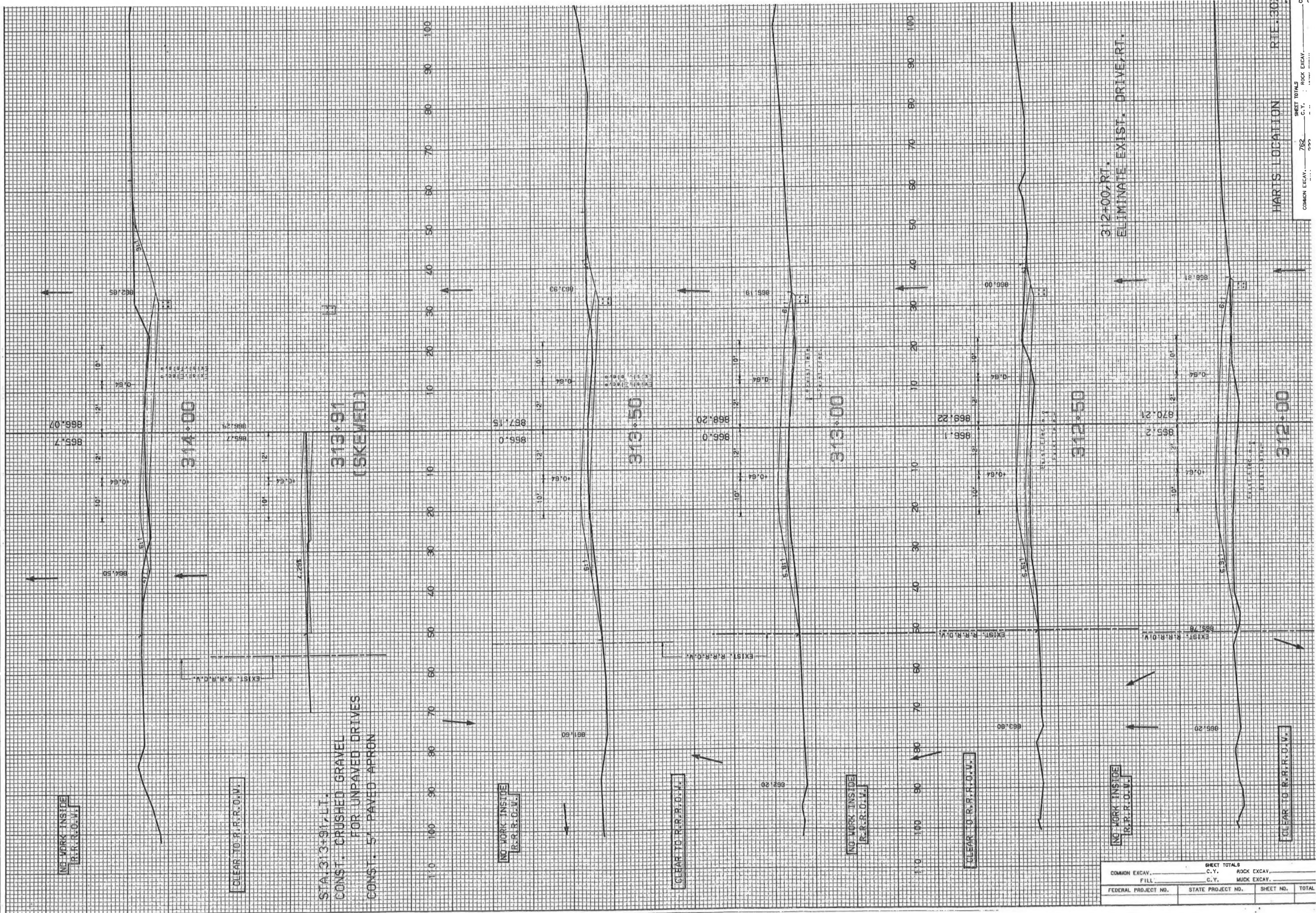
SHEET TOTALS		
COMMON EXCAV.	C.Y.	ROCK EXCAV.
FILL	C.Y.	MUCK EXCAV.
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.

SECTIONS PLOTTED STEVE LEBARON		DATE	9-1-90
TEMPLATE PLOTTED	"	DATE	"
EARTHWORK COMPILED	"	DATE	"
SHEET CHECKED	"	DATE	"
FINALS PLOTTED	"	DATE	"

NOTEBOOKS		REVISIONS AFTER PROPOSAL			
		NUMBER	DATE	STATION	DESCRIPTION
BOOK	PAGE				
BOOK	PAGE				
BOOK	PAGE				

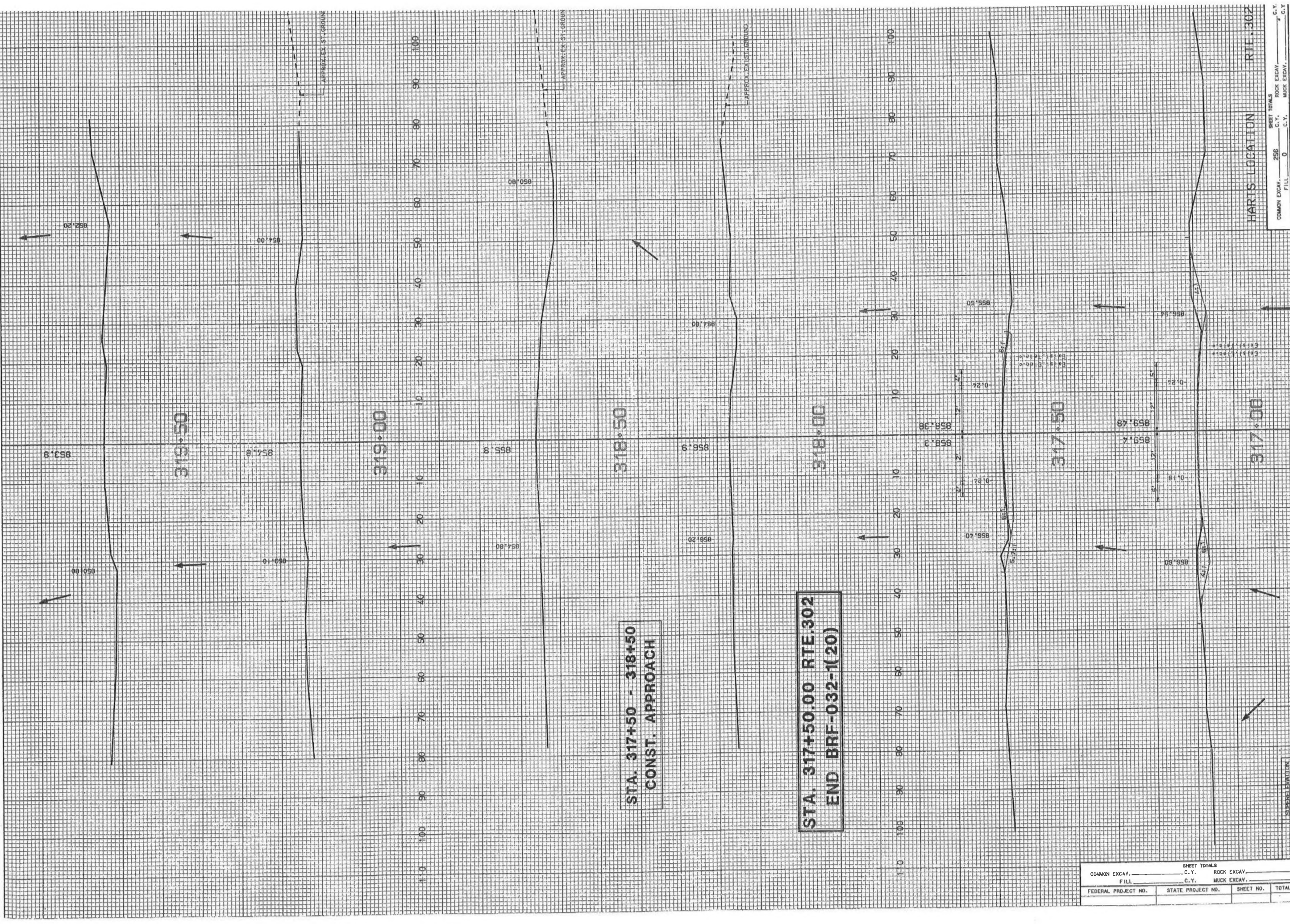


SECTIONS PLOTTED		STEVE LEBARON		DATE 9-1-90		REVISIONS AFTER PROPOSAL	
TEMPLATE PLOTTED	"	DATE "	"	NUMBER	DATE	STATION	DESCRIPTION
EARTHWORK COMPILED	"	DATE "	"	BOOK			PAGE
SHEET CHECKED	"	DATE "	"	BOOK			PAGE
FINALS PLOTTED	"	DATE "	"	BOOK			PAGE



SHEET TOTALS			
COMMON EXCAV.	C.Y.	ROCK EXCAV.	
FILL	C.Y.	MUCK EXCAV.	
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL

SECTIONS PLOTTED STEVE LEBARON		DATE 9-1-00		REVISIONS AFTER PROPOSAL	
TEMPLATE PLOTTED	"	DATE "	"	NUMBER	STATION
EARTHWORK COMPILED	"	DATE "	"		
SHEET CHECKED	"	DATE "	"		
FINALS PLOTTED	"	DATE "	"		
BOOK		PAGE		DESCRIPTION	
BOOK		BOOK	PAGE		
BOOK		BOOK	PAGE		



SHEET TOTALS			
COMMON EXCAV.	C.Y.	ROCK EXCAV.	C.Y.
FILL	C.Y.	MUCK EXCAV.	C.Y.
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL

SHEET TOTALS	
COMMON EXCAV.	C.Y.
FILL	C.Y.
ROCK EXCAV.	C.Y.
MUCK EXCAV.	C.Y.

HARTIS LOCATION RTE. 302